WORCESTER
State College

# *Undergraduate Studies Catalog*

# 2005-2006

WWW.WORCESTER.EDU

# NOTICE

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Whether noted elsewhere in this catalog or not, the College reserves the right to change, eliminate, and add to any existing (and to introduce additional) rules, regulations, policies, fees and other charges, courses of study and academic requirements. Whenever it does so, the College will give as much advance notice as it considers feasible or appropriate, but it reserves the right in all cases to do so without notice.

# WORCESTER STATE COLLEGE

486 Chandler Street, Worcester, MA 01602-2597

508-929-8000

www.worcester.edu

# CATALOG
# UNDERGRADUATE STUDIES

Academic Year 2005-2006

Graduate information is available in the Graduate School Catalogue which may be obtained in the Graduate Office.

WORCESTER
State College

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# General Information

## Prologue

From its founding in 1874 Worcester State College has been dedicated to educational programs that lead to self-enrichment and to careers in the professions, government, business and industry.

As a public, state-funded college governed by a local Board of Trustees under the direction of the MA Board of Higher Education, Worcester State College is empowered to award baccalaureate and master's degrees in education and in the arts and sciences. While continuing its tradition of serving the residents of the Commonwealth, the College has earned a reputation for quality teaching by dedicated faculty in classes of moderate size, and for programs responsive to its students' and society's changing needs.

## Mission

Worcester State College, a public metropolitan institution of higher learning located in a culturally vibrant region of the Commonwealth, affirms the principles of liberal learning as the foundation for all advanced programs of study.

The College offers programs in the traditional liberal arts and sciences disciplines, while maintaining its historical focus on teacher education. It has expanded its offerings with professional degree programs in biomedical sciences, business, and the health professions. Through its curricula, the College addresses the intellectual and career needs of the increasingly diverse citizenry of central Massachusetts.

Worcester State College is dedicated to offering high quality, affordable undergraduate and graduate academic programs and to promoting the lifelong intellectual growth, global awareness, and career opportunities of its students. To this end, the College values teaching excellence rooted in scholarship and community service; cooperates with the business, social and cultural resources of Worcester County; collaborates with other institutions of higher learning in the region; and develops new programs responsive to emerging community needs.

# Accreditation

Worcester State College is accredited by the New England Association of Schools and Colleges, Inc., a non-governmental, nationally recognized organization whose affiliated institutions include elementary schools through collegiate institutions offering post-graduate instruction.

Accreditation of an institution by the New England Association indicates that it meets or exceeds criteria for the assessment of institutional quality periodically applied through a peer group review process. An accredited school or college is one which has available the necessary resources to achieve its stated purposes through appropriate educational programs, is substantially doing so, and gives reasonable evidence that it will continue to do so in the foreseeable future. Institutional integrity is also addressed through accreditation.

Accreditation by the New England Association applies to the institution as a whole. As such, it is not a guarantee of the quality of every course or program offered, or the competence of individual graduates. Rather, it provides reasonable assurance about the quality of opportunities available to students who attend the institution.

Inquiries regarding the status of an institution's accreditation by the New England Association should be directed to the administrative staff of the school or college. Individuals may also contact the Association:

NEW ENGLAND ASSOCIATION OF SCHOOLS AND COLLEGES
THE SANBORN HOUSE, 15 HIGH STREET
WINCHESTER, MASSACHUSETTS 01890
(617) 729-6762

The following programs are accredited by their respective professional organizations: Nursing, The National League for Nursing; Speech-Language Pathology, the American Speech-Language-Hearing Association; Occupational Therapy, Accreditation Council for Occupational Therapy Education; and Nuclear Medicine Technology, the Joint Review Committee on Educational Programs in Nuclear Medicine Technology. Please refer to department chapters for addresses and telephone numbers of the accrediting organizations.

# Policy on Nondiscrimination

The College is committed to a policy of nondiscrimination, equal employment opportunity, and affirmative action in its educational programs, activities, and employment practices. The College maintains and promotes a policy of nondiscrimination on the basis of race, creed, religion, color, sex, sexual orientation, age, disability, veteran status, marital status, and national origin. This policy incorporates by reference the requirements of Federal Executive Orders 11246 and 11375 as amended; the Civil Rights Act of 1964 as amended; Title IX of the Higher Education Act of 1972 as amended; Sections 503 and 504 of the Rehabilitation Act of 1973, as amended; Section 402, Vietnam Era Veterans Readjustment Assistance Act of 1974; the Civil Rights Restoration Act of 1988; and pertinent laws, regulations, and executive orders; directives of the Massachusetts Board of Higher Education, the Board of Trustees, the Commonwealth of Massachusetts, and other applicable state and federal statutes.

The Director of Diversity may be contacted at 508-929-8117 regarding the College's policy of nondiscrimination and affirmative action (including compliance with Section 504 of the Rehabilitation Act of 1973, as amended).

# Family Educational Rights and Privacy Act

Worcester State College complies fully with the provisions of the Family Educational Rights and Privacy Act of 1974. This federal law protects the privacy of education records, establishes the rights of students to:

1. Inspect and review their education records within 45 days of the day the College receives a request for access.

   Students should submit to the registrar, dean, head of the academic department or other appropriate official, written requests that identify the record(s) they wish to inspect. The College official will make arrangements for access and notify the student of the time and place where the records may be inspected. If the College official to whom the request was submitted does not maintain the records, that official shall advise the student of the correct official to whom the request should be addressed.

2. Request the amendment of the education records that the student believes are inaccurate or misleading.

   Students may ask the College to amend a record that they believe is inaccurate or misleading. They should write to the College official responsible for the record, clearly identify the part of the record they want changed, and specify why it is inaccurate or misleading.

   If the College decides not to amend the record as requested by the student, the College will notify the student of the decision and advise the student of his or her right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing.

3. To file a complaint with the U.S. Department of Education concerning the alleged failures by Worcester State College to comply with the requirements of FERPA, the name and address of the Office that administers FERPA is:

   Family Policy Compliance Office
   Department of Education
   Independence Avenue, SW
   Washington, DC 20202-4605

Worcester State College accords all the rights under the law to students who are declared independent. No one outside the institution shall have access to nor will the institution disclose any information from students' education records without the written consent of students except to personnel within the institution, to officials of other institutions in which students seek to enroll, to persons or organizations providing students' financial aid, to accrediting agencies carrying out their accreditation function, to persons in compliance with a judicial order, and to persons in an emergency in order to protect the health or safety of students or other persons. All these exceptions are permitted under the Act.

A school official is a person employed by the University in an administrative, supervisory, academic or research, or support staff position (including law enforcement unit personnel and health staff); a person or company with whom the University has contracted (such as and attorney, auditor, or collection agent); a person serving on the Board of Trustees; or a student serving on an official committee, such as a disciplinary or grievance committee, or assisting another school official in performing his or her tasks. A school official has a legitimate educational interest if the official needs to review an education record in order to fulfill his or her professional responsibility.

At its discretion the institution may provide Directory information in accordance with the provisions of the Act to include: student name, address, telephone number, date and place of birth, major field of study, dates of attendance, degree and awards received, the most recent previous educational agency or institution attended by the student, participation in officially recognized activities and sports, height and weight of members of athletic teams, and other similar information.

Currently enrolled students may withhold disclosure of Directory Information by notifying the Registrar in writing of the request prior to the end of the first week of classes in the Fall. Such requests will be honored for the duration of the academic year—September through August; therefore, authorization to withhold Directory information must be filed annually with the Registrar. The College assumes that failure on the part of the student to specifically request the withholding of categories of Directory Information indicates individual approval of disclosure.

A request to withhold the above data in no way restricts internal use of the material by the College.

In compliance with the Family Educational Rights and Privacy Act of 1974, as amended, the College reserves the right to disclose information to parents of a student under 18 and/or the parents of a student who is dependent upon such parents for Federal Income Tax purposes.

# The Campus

The College is located on 58 acres of rolling, wooded land facing Chandler Street in the residential west side of Worcester. It is within an hour's drive of all major population centers in New England and combines urban convenience with a suburban setting. The College is convenient to the Worcester Airport, a regional facility, and to Interstate Highways 90 (Massachusetts Turnpike), 190, 290 and 495. The campus is served by buses of the Worcester Regional Transit Authority and by the shuttle bus service of the Worcester Consortium for Higher Education. The physical facilities of the Campus include the following:

**Administration Building**
Constructed in 1932 to inaugurate the College's new location, the Administration Building houses the offices of the President, Vice President for Academic Affairs, Vice President for Institutional Advancement and the Associate Vice President for Academic Affairs, the Admissions Office, the Office of Assessment and Planning, faculty offices, Human Resources, Affirmative Action, and Vice President for Finance, classrooms, plus an auditorium equipped for theatrical productions.

**Sullivan Academic Center**
Named for Eugene A. Sullivan, College President from 1947 to 1970, the Sullivan Academic Center is a primary instructional center on campus. It contains faculty and academic department offices, a large lecture hall (Eager Amphitheater), classrooms, and a large attached auditorium. The Sullivan Auditorium provides the setting for a number of formal ceremonies including the annual Academic Honors Convocation. Also located in the Sullivan Academic Center are the Center for the Study of Human Rights, the Center for Teaching and Learning, and the Women's Studies Program Office.

**Kalyan K. Ghosh Science and Technology Building**
Opened in Fall 2000, the Science and Technology Building is a state-of-the-art building designed to house the sciences including: Academic Computing, Communication Disorders, Occupational Therapy, Computer Science, Biology, Biotechnology, Chemistry, Geography and Earth Science, Geology, Natural Science and Physics, Health Science and Nursing. The building contains thirty science, therapy and computer labs; offices for faculty and

staff; conference/seminar rooms; and student discussion areas. This facility also houses a 200-seat Multimedia Classroom and an 80-seat General Use Computer Lab.

**Learning Resources Center**

The Learning Resources Center (LRC) houses the Library, a comfortable place for study and research with over 142,000 volumes and approximately 1000 current periodicals. A CD-ROM network provides ready access to several resources electronically and a new library system will soon offer easy catalog and Internet searching capabilities. The Library is a member of the Worcester Area Cooperating Libraries (WACL), a joint effort of 15 academic, public, and special libraries to facilitate the sharing of resources and provide advanced techniques in library and information science. A book delivery shuttle service operates daily during the academic year and weekly during the summer to facilitate interlibrary loans to students, faculty and staff. WACL extends cross-borrowing privileges to all full-time and permanent part-time faculty and high-level administrators. Individually issued WACL cards permit direct loans from member libraries.

The Learning Resources Center also encompasses a complex of modern telecommunications and electronic learning facilities including the Information Technologies offices. The campus-wide computer network, maintained by Information Technologies, provides Internet connections to the outside world from the computer labs and student email accounts.

Also in the LRC are television studios and a production facility, and photographic laboratories. An instructional media center provides media to support the teaching and learning process while media production services is equipped for production of slides and tapes. The offices for library staff, Facilities, Publications and Printing Services, and the Communications and Criminal Justice academic departments are located in this building along with seminar rooms, classrooms, and lecture halls.

**Gymnasium**

The Gymnasium contains indoor athletic and recreational facilities, including the Oscar Larsson Fitness Center. It also houses the Health Services Office, Athletics and Recreation administrative offices, Graduate and Continuing Education, the Registrar, and the Academic Success Center.

**Residence Halls**

Residence Halls at Worcester State College provide housing to approximately 1000 full-time undergraduate students. Chandler Village is a unique living area with 63 apartments in 26 interconnected town houses. The apartments accommodate four, eight, nine, ten or eleven persons and include furnished common living and kitchen areas.

Dowden Hall, more traditional in style, is a five-story residence hall which includes single and double rooms with study and recreational lounges.

Wasylean Hall is a six-story, suite-style building with multiple study and common rooms through out. The suites are designed to accommodate four and six people. Each unit has single and double occupancy bedrooms with furnished common and kitchen areas. There is a Ritazza coffee shop on the first floor. Wasylean Hall is home to the Office of Residence Life and Housing and the College Police.

**Student Center**

The Student Center is available as a resource for the entire College community and is conveniently situated at the geographical center of the campus. The first floor of the Student Center contains the following resources: Snack Bar and dining area, college bookstore, Information Desk, and the Print Center. The first floor also has several meeting/programming spaces including the North/South Auditorium, Blue Lounge, Exhibit Area and One Lancer Place. The second floor houses the Student Center/Student Activities Office, Facilities and Reservations, Commuter Services/Weekend Programming, and Disability Services. Small meeting rooms, WSCW Radio Station and the main commuter lounge and The Living Room, are also located on this floor. The third floor holds several Student Affairs offices including

the Vice President of Student Affairs, Career Services, Counseling Office, Dining Services, Judicial Affairs and Multicultural Affairs. Student organization offices are also located on this floor as well as the main cafeteria and additional meeting space.

**Outdoor Facilities**
The College has the advantage of naturally attractive surroundings. Among its outdoor facilities are an artificial turf athletic field and an eight-lane synthetic track, baseball and softball diamonds, field hockey, and tennis courts

# Community Relations

The College's primary connection with the community is the Office of Institutional Advancement. The main responsibilities of the department are to further the mission and goals of the College through a variety of endeavors including fund development, alumni relations, marketing and communications. These four separate elements work in tandem to enhance the image of the College and to maintain positive relationships with a wide range of constituencies.

Annually, the Office of Institutional Advancement coordinates a number of special activities for Worcester State College alumni including Reunion Weekend, Homecoming, and chapter events. Publications such as the Worcester Statement, Communiqué, and the Annual Report are published to inform the various constituents of the College's accomplishments.

Fund-raising campaigns provide an array of benefits and services to current students, alumni, and friends. Contributions are used primarily for scholarships, academic awards, laboratory and classroom equipment, educational seminars, and other support services to promote quality education.

The department oversees all media relations and releases newsworthy information pertaining to the College both locally and nationally. In addition, the professional staff participates in events sponsored by the State of Massachusetts, the City of Worcester, and the local Chamber of Commerce; hosts conferences, legislative meetings, and community breakfasts; sponsors seminars, lectures, and workshops; and supports a variety of initiatives in the arts and multi-cultural events. The College's calendar includes numerous programs and events to which the public is welcomed. Members of the community have participated in workshops and conferences on topics such as energy, elder affairs, and hearing disabilities. Please refer to our website for daily calendar activities: www.worcester.edu (news & events).

# Change of Catalog Information

This catalog was prepared in the summer of 2005, with information available at the time of preparation. Provisions of this catalog are subject to change by order of the Massachusetts Board of Higher Education or the Worcester State College Board of Trustees. It is the policy of the College to provide advance notice of changes whenever it is reasonable and practical to do so.

# Undergraduate Studies

# Degree Programs

Worcester State College is authorized to award the Bachelor of Arts (BA) and the Bachelor of Science (BS) degrees in the following academic programs:

| Program | Major | Minor | Sponsoring Department |
|---|---|---|---|
| Art | | X | Visual & Performing Arts |
| Biology | BS | X | Biology |
| Biotechnology | BS | | Biology |
| Business Administration | BS** | X | Business Administration & Economics |
| Chemistry | BS** | X | Chemistry |
| Communication Disorders | BS | X | Communication Disorders |
| Communications | BA** | X | Communications |
| Community Health | BS** | | Health Sciences |
| Computer Science | BS** | X | Computer Science |
| Criminal Justice | BS* ** | | Westfield State College Criminal Justice Program |
| Early Childhood Education | BS | | Education |
| Economics | BS | X | Business Administration & Economics |
| Elementary Education | BS | | Education |
| English | BA** | X | Languages & Literature |
| French | | X | Languages & Literature |
| Geography | BS | X | Physical & Earth Sciences |
| Health Education | BS** | X | Health Sciences |
| History | BA** | X | History & Political Science |
| Information Technology | | X | Computer Science |
| Mathematics | BS | X | Mathematics |
| Middle East Studies | | X | History & Political Science |
| Music | | X | Visual & Performing Arts |
| Natural Science | BS** | X | Physical & Earth Sciences |
| Nursing | BS | | Nursing |
| Occupational Studies | BS | | Occupational Therapy |
| Philosophy | | X | Philosophy |
| Physics | | X | Physical & Earth Sciences |
| Political Science | | X | History & Political Science |
| Psychology | BS** | X | Psychology |
| Secondary Education | | X | Education |
| Sociology | BS | X | Sociology |
| Spanish | BA | X | Languages & Literature |
| Theatre | | X | Visual & Performing Arts |
| Urban Studies | BS | X | Urban Studies |

*Offered in conjunction with Westfield State. See page 118.
**Majors that are also offered in the evening.

The following interdisciplinary concentrations are also available [only as a minor]:

| Concentration | Sponsoring Departments |
|---|---|
| Gerontology | Urban Studies and Consortium Institutions |
| Labor Studies/Labor Relations | Business Administration & Economics and History & Political Science |
| Nuclear Medicine Technology | Biology, Chemistry, Physical & Earth Sciences |
| Women's Studies | Interdisciplinary Program |

# Admission

Worcester State College seeks to enroll students who will succeed academically, thrive socially and contribute meaningfully to the campus community.

## Freshmen Admission

Your high school academic record is the single most important factor in our evaluation process for freshman admission. The quality and level of courses, grade point average, and grade trends are all important factors. SAT I and/or ACT scores are required. Your work experience and extracurricular activities may strengthen your overall credentials for admission. SAT II test scores, a personal essay, and teacher recommendations are not required but may add support to your application. The TOEFL is recommended for students who are not native speakers of English. Specific requirements for competitive majors such as education, criminal justice, nursing and occupational therapy are described in the application materials.

As a Massachusetts state college, Worcester State College determines freshman admission eligibility in accordance with the published standards established by the Massachusetts Board of Higher Education (MBHE). Meeting these minimum standards does not guarantee admission to the college.

## MBHE Massachusetts High School Unit Requirements (College Prep)

| | |
|---|---|
| English | 4 |
| Mathematics | 3 (Algebra I & II and Geometry or Trigonometry, or comparable coursework) |
| Natural Science | 3 (including 2 with lab) |
| Social Science | 2 (including U.S. History) |
| Foreign Language | 2 (in a single language) |
| Electives | 2 |

**Minimum Grade Point Average in Required Courses**

The grades you earn in college preparatory courses are re-calculated into a grade point average (GPA). In re-calculating your GPA, you will receive extra credit for honors or Advanced Placement courses. Non-college preparatory courses are not included; therefore, the GPA calculated by the College will be different than the GPA calculated by your high school.

Your grades will be converted to a 4.0 scale, where “A” = 4.0, “B” = 3.0, “C” = 2.0, and “D” = 1.0. On this scale, a 3.0 GPA is equal to a “B” average. A 3.0 minimum GPA is required, unless the student attains one of the GPA/SAT combinations listed in the chart on page 14.

**SAT I or ACT Test Requirement**

For students with a GPA of 3.0 or above, the college reserves the right to establish additional criteria, such as a minimum SAT I or ACT score and/or minimum class standing.

For those students with a GPA below 3.0, a clear-cut SAT I /ACT score will be applied as a minimum standard, in accordance with the Massachusetts Board of Higher Education Scale below.

| GPA | SAT I | ACT |
|---|---|---|
| 2.51-2.99 | 920 | 19 |
| 2.41-2.50 | 960 | 20 |
| 2.31-2.40 | 1000 | 21 |
| 2.21-2.30 | 1040 | 22 |
| 2.11-2.20 | 1080 | 23 |
| 2.00-2.10 | 1120 | 24 |

***No applicant with a high school GPA less than 2.00 may be admitted to a state college.***

* NOTE: The Massachusetts Board of Higher Education Scale will be subject to change in spring 2007 with the administration of the new SAT.

Students who have graduated from high school three years ago or more should apply as non-traditional students (see section below) and may present SAT I/ACT scores at their option.

## GED Recipients

Candidates for admission who have completed the high school diploma requirement by earning the General Equivalency Diploma (GED) must submit official GED score reports with a minimum attainment in the 75th percentile in all subject areas; an official copy of the high school transcript showing work completed and/or attempted with grades earned; a personal statement of no fewer than 150 words outlining academic and career goals as well as life experience; and/or a professional resume. GED applicants must also submit official SAT score reports if 21 years of age or younger; students 22 years of age or older are not required to submit SAT scores.

## Transfer Applicants

If you do not enroll as a freshman, you may attend a community college or other college or university, and then transfer to Worcester State College. To do so, you will have to meet one of the following requirements:

1) 12-23 transferable college credits and a minimum 2.5 college GPA;
2) Up to 23 transferable college credits, a minimum 2.0 college GPA, and a combination of high school grades and SAT/ACT scores that meet the admission standards for freshmen applicants; OR
3) 24 or more transferable college credits and a minimum 2.0 college GPA.

If you have earned college credits while enrolled in high school, you must meet the admission standards outlined above for freshmen applicants.

## Non-Traditional Applicants

If you apply to Worcester State College more than three years after high school graduation, you do not need to meet the admission standards for freshmen. Instead, you must show that you are capable of succeeding in college based upon your high school and/or college transcript grades. Standardized test scores and other factors may be used as part of the admission

process. A personal statement outlining your experience in life or work, your career goals, and your specific reasons for applying to Worcester State College is also required.

## Special Admission

If you do not meet the standards for freshmen, transfer or non-traditional students, you still may be accepted based upon other signs of your potential for academic success in a four-year college program. Possible signs of such success include steadily improving high school grades, a high ranking in your high school class, special talents, and strong recommendations.

## International Applicants

Worcester State College welcomes qualified international applicants. Priority review will be given to applicants who submit the documentation listed below before April 1st for the Fall semester (January 15th for the Fall only Nursing and Occupational Therapy majors). No international applicants will be considered for the Spring semester unless:

- You are currently enrolled in an ESL program in the U.S.
- You are currently attending a U.S. college or university.
- You are currently in the U.S. with a legal status which permits academic studies or language training.
- You currently have a J1, H1B, or H4 visa.
- You were accepted for a previous semester but deferred attendance due to being refused a visa.

1) Official high school/secondary school transcripts or national exam reports.
2) Official college or university transcripts accompanied by a course-by-course formal evaluation by a professional evaluating agency in the U.S. (for courses taken outside the U.S.).
3) Official results of the TOEFL; minimum TOEFL score of 550 (paper exam) or 213 (computer exam) is required.** All TOEFL scores must be submitted directly from the Educational Testing Service (ETS). For additional information, you may access www.toefl.org or call the Intensive English Language Institute (IELI) at Worcester State College, 508-929-8120.

   TOEFL is a requirement for all applicants who have studied in a country where English in not the native language. However, the TOEFL can be waived if the SAT verbal subscore is 450 or higher.

   **A new Internet-based TOEFL with a new method of scoring will be offered in the U.S. beginning on September 24, 2005. The new TOEFL will be offered in phases worldwide during 2006. The new required minimum TOEFL score will be 79-80.
4) Results of the SAT are required for all freshman applicants; a verbal subscore of 450 or higher can be used in lieu of the TOEFL; the math subscore is used by the Admission Office to determine quantitative skills.
5) Bank statement, no more than six months old, from a financial institution or agency indicating that adequate funds are available to cover all educational expenses incurred while at Worcester State College for one academic year (currently a minimum of $19,000 U.S. dollars).

6) Affidavit of financial support (Form I-134) from person or people sponsoring your education in this country.

7) International applicants, who have attended another college or university or secondary school in the U.S., must forward a copy of their I-20 Form with their application.

Transcripts and other documents submitted in languages other than English must be accompanied by an English translation and course-by-course evaluation (if applicable) from a recognized agency or organization. For a list of approved agencies, please contact the Office of Admission.

***Please note:*** Worcester State College will not issue an I-20 Form to international applicants until the tuition deposit is paid. The tuition deposit deadline for the Fall semester is May 1st. There will be no exceptions to this deadline.

# Exceptions

### Learning Disabled

If you have a documented learning disability, you do not have to take tests such as the SAT I or ACT for admission to Worcester State College. However, you must submit pertinent current documentation (i.e., IEP, etc.) of your learning disability, and you must still complete the required academic units with a minimum GPA of 3.0. Freshman applicants with a language-based learning disability may substitute two alternative college prep electives for the foreign language course requirements.

### English as a Second Language (ESL) Students

If you are an ESL student, you are eligible for exceptions to the admission requirements. For example, ESL students may substitute two electives for the two required foreign language courses. You must take the Test of English as a Foreign Language (TOEFL) and SAT I, and should contact your guidance counselor or the Admission Office for more information.

### Vocational-Technical Students

Vocational-technical students must complete 16 college preparatory courses, distributed in the same manner and with the same minimum grade point averages required of other high school graduates, with the following exceptions:

- Two vocational-technical courses may be used to fulfill the two required electives.
- Vocational-technical high school graduates who do not complete the two required college preparatory foreign language courses must complete an additional elective college preparatory course, for a total of three such courses, and satisfy *one* of the following options:

1) Complete at least one Carnegie unit of foreign language;

2) Complete a fourth Carnegie unit of mathematics or science, which need not be a laboratory course; or

3) Complete one Carnegie unit of computer science.

*Note: A Carnegie unit represents a full academic year of study or its equivalent in a specific subject.*

This requirement will remain in effect until the Department of Education (DOE) implements its requirements regarding foreign language study for vocational-technical students. At that time, vocational-technical applicants for admission to UMass and the state colleges will be required to meet DOE requirements for foreign language study.

# Application Process

### Directions for Freshman Applicants

Students can obtain applications from their guidance counselors. Applications may also be obtained from the Admission Office, Worcester State College, 486 Chandler Street, Worcester MA 01602-2597, 508-929-8040, toll free: 866-WSC-CALL. Students may also apply on-line at www.worcester.edu/admissions.

**Each applicant must submit the following materials:**

- An official copy of the high school transcript;
- An official copy of SAT I, ACT, or TOEFL (test results should be submitted directly to the College from the testing agency);
- A completed Worcester State College application form;
- Payment of an application fee: $20 for all applicants.

NOTE: Beginning in spring 2005, the SAT I will include a student-written essay and multiple choice writing section. Worcester State College will require official scores of all SAT I results.

High school students should request an official high school transcript that includes at least the first marking period of the senior year. Also, a final high school transcript must be requested at the time of graduation that indicates successful completion of the requirements to graduate from high school. The Admission Office must receive this official, final high school transcript before registration for courses and the final award of financial aid is approved. All transcript materials requested by the applicant become the property of Worcester State College and cannot be released to the applicant or to other institutions or agencies.

**Priority Deadlines for Fall:** January 15th for Nursing (Fall enrollment only) and Occupational Therapy and Criminal Justice applicants; March 15 for all others. However, Worcester State College will accept applications through June 1. Complying with the March 15 priority deadline increases opportunities for housing and financial aid. All decisions for admission are rendered on or before April 1 for those who meet the priority deadline. All pertinent deposits and orientation fee are due on or before May 1 for those students who meet the priority deadline.

**Priority Deadlines for Spring:** December 1. No Spring applicants for Nursing or Occupational Therapy.

### Directions for Transfer Applicants

Transcripts from colleges previously attended are the primary factor in determining acceptance to the College. To be considered a transfer applicant, a student must have successfully completed at least 12 transferable credit hours, with a 2.5 or higher GPA, at an accredited college or colleges. The following materials must be supplied:

- A final high school transcript, indicating proof of graduation from an accredited high school or a high school equivalency certificate indicating the test scores received. These must be received by the Admission Office before clearance for registration or the award of financial aid is approved.
- An official transcript of all courses completed at each post-secondary institution attended.
- A completed Worcester State College application form.
- Payment of an application fee: $20 for all applicants.

To qualify for a degree from Worcester State College, transfer students must complete at least 30 of the last 40 semester hours of credit at Worcester State College. Credits earned

elsewhere will be evaluated with respect to curricular requirements of Worcester State College and a Transfer Program Summary of acceptable transfer courses will be included with the acceptance letter.

Worcester State College will transfer a maximum of 60 credits from two-year colleges and a maximum of 90 credits from four-year colleges/universities. If a transfer applicant has previously attended a combination of two-year and four-year educational institutions, a maximum of 90 credits, including no more than 60 credits from the two-year college(s), will be transferred. In order to be considered transferable, a course must be college-level, and the student must have received a grade of C– or better. Remedial/developmental courses, internships, practica, colloquia, and cooperative education experiences will not transfer regardless of the grade received. Also, Worcester State College does not transfer life/career experience as college credit.

**Priority Deadlines:** January 15th for Nursing (for Fall only); RN to BSN applicants must apply by December 10 for January admission only; Occupational Therapy — January 15th for Fall; January 15th for Criminal Justice. (NOTE: Students applying for Fall transfer into Occupational Therapy must begin taking classes in Summer Session I.) All other transfer applications must be received on or before June 1.

### Commonwealth Transfer Compact
### (statewide policy is under review and subject to revision)

The Commonwealth Transfer Compact applies to students transferring from Massachusetts community colleges to public colleges and universities offering the baccalaureate degree. Students shall be eligible for transfer compact status if they have met the following requirements: a) completed an associate degree with a minimum of 60 credit hours exclusive of developmental coursework; b) achieved a cumulative GPA of not less than 2.0 (in a 4.0 system) at the community college awarding the degree and c) completed a minimum 35 credits in general education, exclusive of developmental coursework. The general education core consists of English composition/writing (6 credits), behavioral and social sciences (9 credits), humanities and fine arts (9 credits), natural or physical sciences (8 credits) and mathematics (3 credits).

For students eligible under the compact, the 35 credits in general education will be applied toward the fulfillment of Worcester State's general education requirements. A minimum of 25 additional credits will be accepted as transfer credits by the College. These credits may be transferred as free electives, toward the student's major, distribution course work or any combination, as the College deems appropriate.

To complete the baccalaureate degree, students who transfer under this compact may be required to take no more than 68 additional credits unless they change their program upon entering the receiving institution, or the combination of additional general education requirements and the requirements of their major total more than 68 credits. Under these circumstances, transfer students will be subject to the same requirements as native students. A transfer student may not be held to any degree requirements at Worcester State that were established less than three years prior to transfer admission.

### Joint Admissions

Worcester State College participates in the statewide Joint Admissions program between Massachusetts community colleges and state colleges. Joint Admissions provides barrier-free movement from the community college to Worcester State College. In addition, Worcester State also offers joint admission agreements with the Community College of Rhode Island and Dean College. Additional information is available from the Admission Office at Worcester State and the Academic Deans at the community colleges.

### Pre-entrance Immunization Requirements

New freshman and transfer students must submit required health forms before registering for classes. For additional information refer to Health Services on page 46.

## Admission Following Withdrawal from the College or Leave of Absence

**Matriculated students who fail to take a course during a calendar year will be administratively withdrawn from the College.** Students who wish to permanently withdraw from the College or take a temporary leave of absence must complete appropriate forms in the Office of the Registrar. If the withdrawal or leave of absence is filed prior to the last day to withdraw from courses for the term, "W" will be recorded on the student's record. Students who file for leave of absence or withdrawal after the last day to withdraw from courses for the term may petition if they feel circumstances warrant the recording of "W" for all courses enrolled for that term. Normally, a leave of absence is for one semester; however, a student may have up to one year to return to the College. Failure to return at the specified time will result in an administrative withdrawal from the College.

### Re-activation of Degree Status

There are two procedures in which students can reactivate their matriculation status at WSC after withdrawal/non-continuous attendance/dismissal: readmission and reinstatement.

### Readmission:

Students who have attended other colleges/universities since their withdrawal and wish to have these credits evaluated for transfer to their WSC program, will need to be readmitted through the Admissions Office. As well, students re-applying for the following majors must do so through the Admissions Office: Education (Elementary and Early Childhood), Criminal Justice, Nursing, and Occupational Therapy. Applications are available in the Admissions Office — Administration Building Room A-204 and on-line at www.worcester.edu

### Reinstatement:

If students have not accumulated any college level courses prior to seeking reactivation of their degree status and are not applying for the following majors: Education (Elementary and Early Childhood), Nursing, Occupational Therapy, and Criminal Justice, they should apply for reinstatement directly through the Registrar's Office — Gym Building Room 212. It is the students' responsibility to supply and update the following documents if not already on file.

- final high school transcript
- completed proof of residency form
- official transcript of all courses completed at each post-secondary institution attended (excluding WSC)

Upon completion of any missing data, the student's file will be reviewed and a plan for academic persistence and success will be developed. In most cases, it is recommended that students meet with an appropriate advisor.

### Academic Progress after reinstatement/readmission

It is expected that students must attain a minimum GPA of 2.0 for each semester following their return. Failure to maintain a 2.0 overall average will result in a second separation from the College not subject to appeal.

All reinstated students follow the degree, program, and graduation requirements from the catalog in effect at the time of their reactivation, not those in effect at the time of their withdrawal. Students need to attend WSC at least for one semester prior to graduation certification.

## Special Non-Matriculated Students

Students classified as Senior Citizens, College Academic Program Sharing (CAPS) and Colleges of Worcester Consortium may enroll as Special Students. Others may enroll up to a maximum of 11 credit hours on a slot available basis at a time designated by the Registrar. Others who wish to enroll for more than 11 credit hours in state-supported classes must be admitted to the College through the Admissions Office before taking courses.

## Admission to Non-Degree Programs

Applicants who have already earned a bachelor's degree and wish to complete a second major or teacher certification program in Early Childhood or Elementary Education should specifically request an undergraduate application form. See graduate studies section for information on middle school and secondary education programs.

## Second Baccalaureate Degree

Applicants who have already earned a bachelor's degree may apply for a second baccalaureate. Requirements for this degree are found on page 23.

## Evening Undergraduate Course Offerings

Evening undergraduate course offerings are designed primarily to meet the needs and interests of adult learners and other non-traditional students who pursue study primarily on a part-time basis. The evening schedule of courses offered by the College is especially convenient for students whose job and family commitments prevent enrollment in day programs. Instruction in evening courses is provided by Worcester State College faculty and qualified adjunct faculty.

**All degree seeking students** must follow the procedures for admission to the College outlined above. Students are advised that there is no guarantee that all courses necessary for completion of degree requirements will be available exclusively in evenings/summers.

## Post-Baccalaureate Pre-Medical and Pre-Dental Program

The program recognizes the individual needs of students. Each post-baccalaureate candidate has his/her own academic history. The program recognizes these individual differences. Each participant's academic history is evaluated and appropriate courses are advised based upon his/her specific needs. Pre-Medical and Pre-Dental students have access to WSC's Pre-Medical & Pre-Dental Advisory Committee including its advisory service and its recommendation letter process.

Students who complete twenty-four credits of the Basic Core Science Courses Required for Medical and Dental School and/or other elective courses at Worcester State College will receive a Certificate of Completion.

Students who have taken no science courses or very few should take the Basic Core Science Courses as prerequisites for medical and dental school. Students who complete the Basic Core plus two semesters of mathematics and NS 400, Natural Science Seminar are eligible for a Second Major, namely, Natural Science. In addition students who meet the College's requirement for foundation and distribution courses are eligible for a Second Baccalaureate Degree. Students entering the program with a strong background in the sciences may opt to take advanced courses in his/her area of interest. Through the

Division of Graduate and Continuing Education students may major in Natural Science. In addition, program participants are eligible for the one year full time Post Baccalaureate Nuclear Medicine Technology Certificate Program offered by WSC and the University of Massachusetts Medical School. The Core Basic Science Courses and mathematics courses through Calculus I and II are offered at the College throughout the academic year in both the day and evening as well as during the College's Summer Session. Interested students should contact the Office of Graduate and Continuing Education.

**The Basic Core**

| | | |
|---|---|---|
| CH 120 & CH 121 | General Chemistry I & II | 8 credits |
| CH 201 & CH 202 | Organic Chemistry I & II (Lectures) | 6 credits |
| CH 203 & CH 204 | Organic Chemistry Lab I & II | 4 credits |
| PY 221 & PY 222 | General Physics I & II | 8 credits |
| BI 105 & BI 106 | Introduction to Biology I & II | 8 credits |

**Science and Mathematics Electives**

| | |
|---|---|
| BI 204 | Microbiology |
| CH 210 | Chemical Analysis |
| CH 301 | Physical Chemistry I |
| CH 302 | Physical Chemistry II |
| CH 303 | Physical Chemistry Laboratory I |
| MA 200 | Calculus I |
| MA 201 | Calculus II |

# Student Right-to-Know Act

The Student Right-to-Know Act of 1990 requires the College to make available to prospective and enrolled students the graduation or persistence rates of selected groups of students. This information is available for review through the Dean of Enrollment Management,

Undergraduate Admissions Office, located in the Administration Building, Room 204.

# Academic Policies and Procedures

## Academic Honesty

We expect students to maintain standards of honesty and integrity in all aspects of their academic careers. Academic dishonesty violates the very nature of our academy. Its scope includes plagiarism, lying, tampering and falsifying reference materials, and theft.

Plagiarism and cheating consist of any attempt by a student to represent the work of someone else as his or her own. It includes, but is not limited to submitting, copying, or substantially restating the work of another person or persons in an oral or written work without citing the appropriate source; collaborating with someone else in an academic endeavor without acknowledging that contribution; and copying the answers of another student in an examination. Worcester State College will not tolerate plagiarism or cheating in the classroom in any fashion. The penalties for academic dishonesty are severe and unawareness is not an acceptable justification. The instructor may fail the student or enforce another appropriate penalty concerning academic dishonesty. Any violation of the Academic Honesty Policy is a violation of the Student Code of Conduct. As such, it is subject to a judicial hearing at the discretion of faculty. The official policies and procedures of the College's judicial system are outlined in the Student Handbook, in the section "Worcester State College Student Code of Conduct and the Judicial System."

## Matriculation

Matriculation is a process whereby students are admitted to the College and pursue a formal course of study leading to the bachelor's degree, second major, certificate, professional certification or master's degree.

## General Requirements for the Baccalaureate Degree

Candidates for a baccalaureate degree must complete 120 semester-hour credits with a 2.0 Cumulative Grade Point Average (GPA) and a minimum 2.0 GPA or higher in the departmental and ancillary courses of the major field of concentration. To receive a baccalaureate degree from Worcester State College, a student must:

- complete 30 of the last 40 credits at Worcester State College;
- earn a majority of credits in the major at Worcester State College;
- earn a majority of credits in the minor (if elected) at the College.

Students completing their degrees within six years must meet the degree requirements of the catalog under which they enter the college. After six years, students are subject to the degree requirements of the catalog in effect for their year of graduation.

**Second Baccalaureate Degree:** A student who holds a bachelor's degree from Worcester State College or another four-year institution of higher education accredited by regional accrediting agencies may be awarded a second bachelor's degree by completing a minimum of 30 additional semester hours of prescribed work at Worcester State College after matriculation into the second degree program. Twelve semester hours of the 30 must be in upper- level work in the student's major, and the student must meet all requirements for that major. In addition, in order to be granted a second degree, the student must meet all current catalog requirements for a baccalaureate degree at Worcester State College, as follows:

- All courses from the former institution which the Office of Admissions deems usable towards fulfillment of the foundation and general education requirements currently existing at Worcester State College will be transferred to the student's second baccalaureate program.
- All courses transferred into the student's major for the second degree are subject to the approval of the Department Chair.
- As many credits from the former institution as are deemed appropriate by the Office of Admissions will be transferred to the student's second degree program as elective credits (up to and not to exceed 90 credits).

**Post-baccalaureate students** who seek a second major but do not seek a second baccalaureate degree at Worcester State College will receive a letter from the Registrar certifying completion of the second major upon completion of all prerequisites to the major and all requirements of the major. **After matriculation into either post-Baccalaureate program, no additional transfer credits will be allocated as graduation credit.**

## General Education Requirements

The College offers general education courses in humanities, behavioral and social sciences, natural sciences, mathematics and computer science, fine arts and health. Together these provide an integrated study which stimulates active learning. Students will be given the opportunity to interpret facts, solve problems, evaluate issues and think creatively and critically.

The general education curriculum at Worcester State College is directed toward helping students to achieve the following:

- To speak and articulate, write clearly and precisely, and listen and read with comprehension;
- To demonstrate basic competencies of mathematical and computer sciences needed to function effectively in our rapidly changing world;
- To acquire an historical perspective;
- To read and interpret a variety of works in literature, music, art and philosophy drawn from the student's own and other cultures;
- To understand the basic principles of modern science and the implications of science in today's society;
- To gain a better appreciation of the student's own attitudes, beliefs and values, as well as those of others.

The General Education Program prepares students to be inquisitive about the world and to be informed about how to make sense of it. The courses lead students to make intellectual, aesthetic and moral judgments in whatever life and career paths they follow.

# Foundation Requirements (Competencies) Credits

**English Composition:** **6 Credits**
EN 101 English Composition I*, EN 102 English Composition II
*unless waived by the Department of Languages and Literature.

NOTE: Students whose assessment scores indicate the need will be required to take Pre-composition during the freshman year. This course carries 3 developmental credits.

**Mathematics:** **3 Credits**
All students will complete one three-credit course, ordinarily during the freshman year. Before enrolling in a college mathematics course, the student may have to participate in the mathematics laboratory, a developmental self-paced exercise for students whose Accuplacer test scores indicate the need.

**Constitutions:** **03 Credits**
All students will complete, prior to graduation, one course in which the constitutions of both the United States and Massachusetts are studied (Massachusetts General Laws, Chapter 73, Section 2A). Courses which satisfy this requirement include:

HI 111 and HI 112, US History I and II; HI/PO 218 and 219, US Constitutional History I and II; PO 102, Constitutions: US and Massachusetts; and PO 210, American Government.

**Foundation courses may not be taken on a pass/fail basis. Courses taken to fulfill foundation requirements cannot also be used to fulfill distribution requirements.**

# Distribution Requirements

The College requires a specified number of credits in the humanities, the behavioral and social sciences, the natural sciences, mathematics, and fine arts, and health studies. Students may select from a broad spectrum of courses in each of these areas. The distribution requirements may be met in any year of the undergraduate program, but students are advised to complete them insofar as possible during the first two years of study. The following restrictions apply:

a) No course within a student's first major discipline may be used to satisfy any distribution requirement.

b) A student may apply no more than 6 credits in a given discipline within a group toward the satisfaction of a distribution requirement; e.g., Humanities: 6 credits in English and 6 credits in History would satisfy the requirement; 9 credits in English and 3 credits in History would not.

**Group I: Humanities** **12 credits**
Students will complete **four courses** (minimum of 12 credits) selected from the disciplines of:

English
Foreign Languages
History
Philosophy
Communications (excluding courses that apply to Group IV).

**Group II: Behavioral and Social Sciences** **12 Credits**
Students will complete **four courses** (minimum of 12 credits selected from the disciplines of:

Cultural Geography ("GE" prefixes)
Economics

Education
Political Science
Psychology
Sociology
Urban Studies

**Group III: Natural Sciences and Mathematics** **13 Credits**

Students will complete **four courses** (minimum of 13 credits), at least one of which must be a science laboratory course selected from:

Biology
Chemistry
Geology/Physical Geography ("GS" prefixes)
Mathematics
Natural Science
Physics

**Group IV: Fine Arts** **9 Credits**

Students will complete **three courses** (minimum of 9 credits) selected from:

Art
Communications*
Music
Theatre
Visual and Performing Arts

*The following Communications courses are considered fine arts offerings and can be used to satisfy **Group IV:** CM 150, CM 231, CM 241, CM 244, CM 249, CM 263, CM 367, CM 373.

**Group V: Health Studies** **3 Credits**

Students will complete either one 3-credit health course or three 1-credit activity courses. This basic requirement may be waived upon validation of completion of military basic training; ROTC students receive a 1-credit exemption for each year of ROTC completed.

# Freshman Experience Requirement

Freshmen who enter as first-time students are enrolled in WSC 101, Academic Strategies for College Success. In the fall, this course is part of a learning community.

### WSC 101 Academic Strategies for College Success

Required of all full-time day students who have fewer than 3 credits upon beginning the freshman year. This course focuses on providing freshmen with the tools necessary to ensure a successful and satisfying initial college experience. Category 1. 1 credit.

# The Writing Center

Located in Sullivan 302, the Writing Center is a resource available free of charge to all members of the Worcester State College community. The Writing Center is staffed by graduate assistants and peer tutors who represent a variety of majors and interests. Sessions can be arranged on an appointment or drop-in basis, and the staff of the Writing Center can address basic and advanced writing needs. The Writing Center also hosts Writenet (http://www.worcester.edu/owl), an on-line writing center that offers instruction and support over the World Wide Web.

## Languages and Literature Technology Classrooms

The Department of Languages and Literature currently supports a fully networked computer classroom which hosts a variety of writing language, and literature courses. The labs are fully equipped with standard office applications, web design and browsing programs, and collaboration software, and students are encouraged to use on-line resources to extend learning outside of the classroom.

## Math Lab Services

The Worcester State College Math Lab, housed in the Math Department (S143), is staffed with a supervisor and peer tutors with day and evening hours (Monday through Friday). Its main function is to offer students, who have not received a passing score on the Accuplacer Elementary Algebra test, resources for skill development. Another attempt to pass Accuplacer occurs after successful completion of a series of tests offered on-line.

This lab offers tutoring on a walk-in basis and houses the mathematics library as well as tutorial software. Any student in need of refreshing their mathematics skills may use this lab which has both a wireless network connection for lap-top users and several desktop computer stations.

## Electives

Having met the general education requirements and those of the major (and minor, where applicable), a student may elect other courses without restriction to complete the 120 semester hours of credit necessary for graduation. Since the purpose of elective courses is to encourage exploration in diverse fields of knowledge, students are urged to take advantage of the opportunity to broaden and deepen their intellectual development.

## Intent to Graduate

The degree and diploma will be granted within 60 days of the final day of examinations for the semester in which degree requirements have been met providing that students have adhered to the following deadlines for filing an Intent to Graduate form:

| | |
|---|---|
| December completion: | Last Friday of October |
| May completion: | Last Friday of December |
| August completion: | Last Friday of May |

## Declaration of Major/Minor

**Major:** Upon or after admission to the College, and in any case prior to the beginning of the junior year, degree seeking students declare an intent to major in a specific discipline. In general, a major is completed by earning no fewer than 30 and no more than 48 credits with a minimum GPA of 2.0. Courses are selected under the direction, and with the approval, of the student's faculty advisor in the major department. No course from a student's first major discipline may be used to fulfill the distribution requirements.

A department may establish standards for admission of enrolled students into major and minor programs. These standards are not based solely on any GPA. They may be based on grades earned in prerequisite courses, demonstration of special knowledge and skills through tests, portfolios, interviews, and other relevant criteria. Departments must

have standards approved by the All College Committee. A minimum GPA at variance with College policy may not be used as a standard for retention as a major or minor student within a department. Transfer credit within the major must be approved by the major department. Not more than 2 courses from the second major may be used to fulfill distribution requirements.

**Minor:** Although not required for graduation, a minor may be completed by earning between 18 and 24 credits in a discipline other than the student's major discipline. Courses are selected with the approval of the student's faculty advisor. Not more than two courses may be used to fulfill distribution requirements.

**Changing Major or Minor:** A student wishing to change a major or minor field of study completes the Declaration/Change of Major/Minor Form at the Office of the Registrar. A request for a change in major or minor must be made in the Fall by October 15 and in the Spring by March 15. Forms for the declaration or change of a major/minor are available at the Office of the Registrar.

**Note:** A student wishing to declare/change into Education, Nursing, or OT must obtain approval from the Chair of the department.

## Academic Advising

A student is assigned a faculty member from his or her major department to serve as advisor in the selection of courses, changes in schedule, and all other academic matters. Undeclared students have faculty/academic advisors assigned as well. The student meets with the academic advisor during the regularly scheduled advising period each semester to review academic progress and select courses for the coming semester. During the registration period the advisor signs the registration form which the student presents in order to enroll in classes. All advisors have office hours so the student should contact the advisor whenever information or an opinion on an academic matter is needed.

**Faculty advisors must approve all courses taken off-campus using appropriate forms available in the Office of the Registrar.**

## Academic Success Center

The Academic Success Center focuses on:

- Advising (for transfer and undeclared students)
- Placement testing
- Special freshman initiatives such as the First-year Programs
- Organization of student workshops that deal with academic issues
- Tutoring for all academic subjects

**Peer Advisors:** The Academic Success Center sponsors a team of Peer Advisors who can provide academic information about programs, policies, and procedures. New students and those unsure of their choice of major are encouraged to drop-in and speak with these students who are resources for support and referral.

# Worcester State College Honors Program

Worcester State College offers selected students the option of partially fulfilling their distribution requirements through participation in the college-wide Honors Program. The purpose of the Honors Program is to present students with a diverse, innovative, and stimulating learning environment that is composed of interdisciplinary and multicultural courses taught, whenever possible, in small sections. Students are encouraged to contact the Honors Program Director for information regarding admission into the program.

To continue in the Honors Program, the student must; complete a total of twenty-one credits in honors courses (six 3-credit courses and a 3-credit capstone experience during their freshman, sophomore, junior and/or senior years).

**Commonwealth Honors Scholars:** Successful completion of the honors courses and a senior thesis will qualify the student to become a Commonwealth Honors Scholar. The Commonwealth Honors Program is a collaboration of select Massachusetts institutions of higher education that provides the student with unique educational opportunities through state-wide conferences, shared cultural activities, and cooperative academic and research support. A student need not be a Commonwealth Honors Scholar to complete the President's Scholars Honors Program in good standing.

# Dean's List (posted for matriculated undergraduate students only)

**Full-time Students:** Following the completion of each semester, the names of all students enrolled for a minimum of 12 graded credits excluding courses taken on a pass/fail basis and whose GPA for that semester is 3.5 or better will appear on the Dean's List. The distinction will be noted on the student's transcript.

**Part-time Students:** Following the completion of each semester, the same criteria for honors for full-time students will be applied to part-time day and evening students. Students must have an academic load of a minimum of six credit hours excluding courses taken on a pass/fail basis. The names of students whose GPA for that semester is 3.5 or better will appear on the Dean's List. The distinction will be noted on the student's transcript.

Any student receiving an incomplete grade in a semester is ineligible for academic honors in that semester.

# Graduation Honors

According to the degree of academic excellence, graduates may be awarded the distinctions of cum laude, magna cum laude, or summa cum laude. Students graduating with honors must attain the following cumulative GPA based on all credits earned at Worcester State College (minimum 60 credit hours for transfer and second degree students).

| | |
|---|---|
| Cum Laude | 3.5–3.69 |
| Magna Cum Laude | 3.7–3.89 |
| Summa Cum Laude | 3.9–4.00 |

# Academic Honors Convocation

Conducted annually, the Academic Honors Convocation gives special recognition to Worcester State College students who excel academically. Students so honored include those achieving the highest grade point average in individual disciplines, scholarship recipients, special academic award recipients, Dean's List and honor society inductees.

# Registration and Course Information

Pre-registration for returning students is scheduled in the fall and spring of each academic year for advance course selection. The order of registration proceeds from seniors to freshmen. A late registration period is held just prior to the beginning of each semester for those students who did not register during the scheduled period. **Class determination** is made at the completion of the Fall semester and at the end of summer sessions. **A student's registration is not considered official until all financial obligations are met.**

**Course Numbering:** The 100 level offerings are introductory or survey courses that generally do not require prerequisites. The 200 level courses are intermediate and may require prerequisite courses. The 300 level courses are advanced and require prerequisite courses. The 400 level courses are generally for seniors and include seminars, independent study, and internships. Courses at the 900 level are open only to post-baccalaureate students.

**Prerequisites** represent an essential body of knowledge and skills necessary for students to succeed at an acceptable level in a course and/or are required to satisfy licensing and certification standards. Specific prerequisites are required for many courses and in certain professional studies leading to licensing and certification. Prerequisites may be waived by the instructor or department chair of the department offering the course.

**Corequisites** are courses which support the successful completion of certain other courses when taken concurrently. When a corequisite is listed for a course, the students are advised to register for both at the same time. In some cases, prerequisite/corequisite classes may fulfill distribution requirements.

**Course Credit** is counted in units called semester hours. The number of semester hours carried by a particular course is indicated in the course description. Twelve to 19 semester hours of credit per semester are considered a full-time schedule of study.

**Course Overload:** Special permission is required for students to register for more than 19 semester hours of credit. Forms are available at the Office of the Registrar and advisor/ department and Dean's approval are required.

**Course Repeat:** Students in academic difficulty who wish to repeat a course must file a course repeat form with the Registrar. Only the higher of the two grades is computed in the cumulative GPA. Students will not receive credit for a course more than one time except for PE100 and MU 102, 220, 225. Both the old and new grade appear on the transcript. Course repeats must be taken at Worcester State College.

**Adding or Dropping a Course:** Students may add/drop courses in accordance with the deadline published in the academic calendar. It is the student's responsibility to return the completed form(s) to the Registrar's Office. After the deadline, students wishing to drop a course must follow the procedure for withdrawal.

**Withdrawal From Courses: W.** A student may withdraw from a course at any point up to one week after failure warnings have been issued. Choosing to withdraw is a serious matter which may affect a student's class standing, full-time status, financial aid, etc. A student considering such a step should seek advice from the instructor or the faculty advisor. To withdraw from a course, a student must obtain a Course Withdrawal Form from the Registrar's Office and follow the prescribed steps. **Mere non-attendance at class does not constitute official withdrawal and may result in a failing grade.**

All "W" grades are permanently recorded on the student's transcript. **A student who withdraws from all courses will be considered withdrawn from the College, and must file a formal intent to withdraw with the Registrar.**

Students who receive any form of Financial Aid or Veterans Educational benefits should consult with the respective office PRIOR to dropping or withdrawing from a course. Reducing hour credit load may adversely affect eligibility to receive Financial Aid or Veterans Educational benefits. In addition, most private insurance companies require that students be full-time (12 credits or more) to be eligible for coverage.

Quality of achievement is represented by the following letter grades with associated points per semester hour of credit.

| | |
|---|---|
| A | 4.0 - points per semester hour credit |
| A- | 3.7 |
| B+ | 3.3 |
| B | 3.0 |
| B- | 2.7 |
| C+ | 2.3 |
| C | 2.0 |
| C- | 1.7 |
| D+ | 1.3 |
| D | 1.0 |
| D- | 0.7 |
| E | 0.0 - no credit, included in calculation of GPA |
| I | a temporary grade, not computed in the GPA |
| P | pass/fail option; credit, not computed in the GPA |
| F | pass/fail option; no credit, not computed in the GPA |
| W | withdrawn; no credit, not computed in the GPA |
| AU | Audit |

**Grade Point Average (GPA):** At the end of each semester (and/or summer session), a semester GPA is calculated by dividing the total number of credits attempted (excluding grades of I, P, F, W) into the sum of the products of points and credits for all courses taken.

**A Cumulative Grade Point Average** reflecting the entire history of a student's achievement at Worcester State College is also computed. The Cumulative GPA is a major factor in determining class membership, academic standing, and eligibility for academic honors. **Only grades earned at Worcester State College are computed in the cumulative GPA.**

**Audit Procedure Policy:** Students electing to audit may attend classes but will not earn grades or be permitted to submit assignments or take examinations. No academic credit is awarded, but the student receives the benefits of course lectures and discussions. Consent of the instructor is required to enroll in a class as an auditor.

Only students who are not matriculated undergraduates at Worcester State College are eligible to audit undergraduate courses. Also ineligible to audit courses are Consortium, CAPS, dual enrollment, and foreign exchange students.

The audit option must be declared at the time of pre-registration or registration. Students cannot switch to credit-bearing status or from credit-bearing to audit status after registration. Audited courses do not count toward load for any purposes (e.g., financial aid, veterans' benefits, etc.) The audit will be permanently recorded on the student's transcript.

**Pass/Fail:** Students may elect up to two courses per semester on a pass/fail basis. **Foundation courses and courses within major(s) and minor(s) disciplines may not be taken pass/fail, even when not applied to specific degree requirements.** Students must notify the Registrar's Office at least **four** weeks prior to the last scheduled day of classes if they intend to take a course on a pass/fail basis. Similarly, students deciding to change from pass/fail status to standard grading must notify the Registrar's Office by the same deadline, **four** weeks before the final day of classes. Once a student decides to change from pass/fail status to standard grading, it is not reversible; the letter grade stands. No more than eighteen (18) hours toward the baccalaureate degree may be taken on a pass/fail basis. No more than two courses in any given semester may be taken pass/fail.

**Independent Study:** A matriculated student desiring to conduct an independent study must select an instructor and prepare a written contract containing the content and credit hours of the study. The approved contract should be submitted to the discipline during the pre-registration advising period but no later than the first week of the add-drop period. One to six hours of credit may be granted for one semester of independent study. No more than 12 credits in independent study may be granted toward the baccalaureate degree. In no event may the total number of credit hours earned in independent study at Worcester State College exceed 10% of the credit hours counted toward a Worcester State College degree. The student must provide a copy of the approved contract to the department chair, major advisor, the instructor and the Registrar's Office no later than the last day of the add-drop period.

**Incomplete Grades:** When circumstances (e.g.: illness) prevent a student from completing a course on time the student is responsible for requesting an incomplete. The professor may grant an incomplete provided the student had completed a substantial portion of the course requirements. The student must make arrangements with the professor to complete the course within six weeks of the beginning of the next semester. The academic calendar indicates the deadline for resolving incompletes from the previous term. If the requirements are not met within the appropriate period, the incomplete will automatically become an "E," and so recorded on the student's permanent record.

An extension of an incomplete for one semester may be granted if circumstances still prevent the student from completing the course. In such cases, the student is responsible for obtaining the approval of the professor who must notify the Registrar in writing of his/her approval prior to the end of the initial six (6) week period. With regard to the extension of an incomplete grade, **the required course work must be completed by the student prior to the beginning of the final examination period of the semester immediately following the one in which the incomplete was originally issued.** The instructor will then have five working days within which to submit a final grade to the Registrar.

**Change of Grade:** Once a grade has been posted to a student's transcript that grade may be changed if, and only if, an error has been made in the calculation or transcription of the original grade. Under no circumstances will a change in grade for a student be allowed because of the submission of additional work after the course has ended. No grade change may be made after the conclusion of the semester following the semester in which the grade was originally submitted.

# Transcripts

Official transcripts of coursework taken at Worcester State College may be obtained by eligible students from the Office of the Registrar with the completion of a form available for that purpose, or by writing the request. Students may also download the transcript request form from our Web site (www.worcester.edu), and forward the completed copy to the Registrar's Office. Requests must include name while attending, current name if different, Social Security number and/or student ID number, last date of attendance and whether or not the student was officially accepted into a program. Transcripts are $2 per copy. Payment must accompany the request in the form of a check made payable to Worcester State College. Transcripts cannot be ordered by telephone or fax.

# International Programs

### International Students

The International Programs Office at Worcester State College bears dual responsibilities advocating internationalization on our campus as well as promoting academic and cultural exchanges within the global community.

The Office serves Worcester State College students in implementing their academic goals, specifically in international education. Students are encouraged to pursue study abroad experience during their academic studies at Worcester State College. The College has study abroad agreements that allow study abroad in virtually every part of the world. The College also maintains exchange agreements with several higher education institutions overseas. The Office of International Programs collaborates with campus academic departments to develop in-house study abroad programs. Led by our own faculty, in-house programs allow students to interact with their faculty more closely while being educated abroad. The student who has completed their sophomore year and earned an overall GPA of 2.5 or above are invited to contact the study abroad advisor to explore program options. *Students with sophomore standing and a GPA of 3.0 will be eligible for study abroad. Interested students may study abroad for one summer, one semester or an entire academic year at our partner institutions overseas. Eligible students should contact the study abroad advisor at 508-929-8104 or email study.abroad@worcester.edu.

With respect to international students and visiting persons, Worcester State College is authorized under federal law to issue I-20 and DS 2019 forms for academic study or teaching at our campus. All international students must have a valid student visa to travel to the U.S. and an approval of student status to conduct required full-time study. Under the policy of Department of Homeland Security, all international students must report to the Office of International Programs after their initial entry to the U.S. International students should contact the office by calling 508-929-8747 or email schao@worcester.edu.

### Intensive English Language Institute

Students wishing to study English and to prepare for the TOEFL can enroll in the 20-hour-a-week, semester-long program for a fee. An 8-week summer program is also offered. Upon acceptance, an I-20 will be issued for the period of one year. This is a non-credit program, and the TOEFL is administered at the College at the end of each semester. The score may be used for admission to Worcester State College only. Brochures and further information are available in the IELI office in the Sullivan Building.

# Standards of Progress

Matriculated students (students admitted to the College and pursuing a formal course of study leading to the bachelor's degree, second major, certificate or professional certification) are expected to make satisfactory and steady progress toward completion of their programs.

Opportunities are available for student advisement, both within the departments and from the Office of Academic Services. However, each student is solely responsible for selecting courses, which satisfy departmental requirements for a major, as well as the general requirements for graduation as described in this catalog. Students are responsible for familiarizing themselves with this information. Exemption from, or exception to, any published requirement is valid only when approved in writing by the Vice President for Academic Affairs, Associate Vice President for Academic Affairs or the Dean of Academic Services and confirmed by the Registrar.

### Attendance

All students are expected to attend and participate in all class meetings and laboratory sessions. In the event that illness or some other emergency prevents a student from attending class, the student should contact the instructor directly. Since attendance requirements differ according to the specific academic goals of each course, students should carefully check the attendance policy on the course syllabus. If there is anticipated prolonged absence, the Dean of Student Development Office (Student Center) should be contacted.

Worcester State College abides by Chapter 375 of the Commonwealth of Massachusetts, An Act Excusing the Absence of Students for Their Religious Beliefs. Section 2B of this law states: "Any student in an educational or vocational training institution other than a religious or denominational educational or vocational training institution, who is unable, because of his religious beliefs, to attend classes or to participate in any examination, study, or work requirement on a particular day shall be excused from any such examination, study or work requirement, and shall be provided with an opportunity to make up such examination, study, or work requirement which he may have missed because of such absence on any particular day; provided, however, that such makeup examination or work shall not create an unreasonable burden upon such school. No fees of any kind shall be charged by the institution for making available to the said student such opportunity. No adverse or prejudicial effects shall result to any student because of his availing himself of the provisions of this section."

**Academic Standing:** For degree-seeking students, class membership is based upon the number of credit hours completed. Class membership determines priority for registration and participation in class events.

| Class | Credit Hours Completed |
|---|---|
| Freshman | 0-29 |
| Sophomore | 30-59 |
| Junior | 60-89 |
| Senior | 90-120 |

**Good Standing:** To maintain good standing at Worcester State College, matriculated students must meet the minimum standards specified below.

| College Credits* | Cumulative GPA |
|---|---|
| 1-29 | 1.50 |
| 30-59 | 1.75 |
| 60 and over | 2.00 |

*College credits include all credits **attempted** at Worcester State College **plus all credits accepted in transfer.** Students are reminded that only grades earned at Worcester State College are used in determining their GPA.

**Warning Status:** Students will not be placed on probation status until they have attempted 24 semester hours; however, students may be placed on a **warning status** if they fail to maintain the minimum standard after attempting 12 semester hours. Students on warning status may enroll in no more than 16 semester hours. In consultation with an academic advisor, each such student will develop an academic plan/registration contract that will include such conditions as repeating failed courses, regularly scheduled advising appointments, attending workshops offered through the Academic Success Center, and recommended use of the writing center, math lab, and tutoring center.

**Probation and Dismissal:** Students who fail to meet and/or maintain the minimum cumulative GPA required for good standing are placed on academic probation and are subject to the following restrictions: 1) they may not participate in intercollegiate athletics; and 2) they may not register for more than 12 semester hours of credit per semester; and 3) they may not serve on any standing and ad hoc governance committees of the College.

Failure to improve the GPA and regain good standing after two regular academic semesters (Fall and Spring) will result in academic dismissal and separation from the College. Students dismissed from the College for academic deficiency may not register for or attend classes at Worcester State College until 12 months have elapsed. Readmitted students must attain a minimum GPA of 2.0 for each semester following their return. Failure to maintain a 2.0 semester GPA will result in a second separation from the College not subject to appeal. See next section regarding withdrawal/leave of absence.

**Appeal of Dismissal:** Students may appeal for reinstatement to continue for a third semester on probation. Appeals must be made in writing to the Chair of the Academic Progress Review Board and submitted to the Registrar within five (5) days of notification. The Academic Progress Review Board will review the written appeals. The decision of the Review Board is final.

## Withdrawal from the College/Leave of Absence

**Matriculated students who fail to take a course during a calendar year will be administratively withdrawn from the College.** Students who wish to permanently withdraw from the College or take a temporary leave of absence must complete appropriate forms in the Office of the Registrar. If the withdrawal or leave of absence is filed prior to the last day to withdraw from courses for the term, "W" will be recorded on the student's record. Students who file for leave of absence or withdrawal after the last day to withdraw from courses for the term may petition if they feel circumstances warrant the recording of "W" for all courses enrolled for that term. Normally, a leave of absence is for one semester; however, a student may have up to one year to return to the College. Failure to return at the specified time will result in an administrative withdrawal from the College.

Students who receive any form of Financial Aid or Veterans Educational benefits should consult with the respective office PRIOR to dropping or withdrawing from a course. Reducing hour credit load may adversely affect eligibility to receive Financial Aid, Veterans Educational benefits. In addition, most private insurance companies require that students be full-time (12 credits or more) to be eligible for coverage.

**Reinstatement after Withdrawal/Non-continuous Attendance/Dismissal**

Students reactivate their undergraduate, matriculation status through the Registrar's Office. It is the students' responsibility to supply and update the following documents if they are not on file:

- final high school transcript
- completed and notarized proof of residency form
- official transcript of all courses completed at each post-secondary institution attended (excluding WSC)

When the file is complete, the student will meet with an advisor and develop a plan for academic persistence and success. If applicable, an updated evaluation of transfer credits will be done at this time. In the case of Nursing, Occupational Therapy, and Education majors, an interview with the academic department will be necessary to determine reinstatement possibility in these majors.

Students readmitted after dismissal must attain a minimum GPA of 2.0 for each semester following their return. Failure to maintain a 2.0 semester GPA will result in a second separation from the College not subject to appeal.

All reinstated students follow the degree, program, and graduation requirements from the catalog in effect at the time of their reactivation. Through appropriate advising, a plan for success outlining the maximum credits applicable will be developed prior to the semester of re-matriculation.

# Academic Reprieve Policy

The Academic Reprieve Policy applies to former Worcester State College students returning to complete baccalaureate degree programs a minimum of three academic years after their last completed semester at Worcester State College. This policy is designed to facilitate program completion for students whose previous academic records were so poor as to put them in jeopardy of academic probation or dismissal immediately upon readmission. A student may exercise this academic reprieve option only once.

A student meeting criteria for eligibility must file a petition form, available in the Office of the Registrar, requesting reprieve of eligible course work at the College, either at the time of readmission or before the close of the first semester of re-enrollment. A maximum of 60 credits may be applied toward graduation from the student's previous enrollment at the College. In order to be applied, those courses must have received a passing grade. Credit for courses in the student's major is contingent upon approval by the Department Chair. None of the grades associated with courses given credit under the academic reprieve policy will be calculated in the student's GPA; however, all course work will be recorded on the transcript. A student selecting the reprieve option will be required to meet degree requirements of the catalog in effect on the date of the student's application for readmission. Those electing the reprieve option may qualify for honors at graduation upon the completion of a minimum of 60 graded credits. All approved academic reprieve students should check with the Financial Aid Office to see whether their reprieve will be recognized for financial aid purposes.

# Undergraduate Appeal Procedure

Prior to invoking the use of the undergraduate appeal procedure, individuals should exhaust all informal means available to resolve questions concerning specific issues related to their courses.

The appeal procedure may not be used to challenge a grade which results from a faculty member exercising usual and customary professional judgment in the evaluation of student work.

**Step 1**

When an issue arises in which the student believes he/she has been treated unfairly, the student shall request in writing a meeting with the instructor. In the case of an end-of-semester grade, the student shall request such a meeting no later than ten working days after the beginning of the next semester. The instructor shall arrange to meet with the student within ten working days of the receipt of the request.

**Step 2**

If the matter is not resolved to the satisfaction of the student at Step 1, then, within ten working days of the meeting in Step 1, the student shall file a written request to review the matter with the appropriate Department Chair.

**Step 3**

If, within ten working days of the receipt of the request in Step 2, the Department Chair is unable to resolve the matter to the satisfaction of all parties, then either party may, within ten working days, file a written request to review the matter with the Associate Vice President for Academic Affairs. In the case of continuing education courses or graduate courses, the appeal at Step 3 goes to the Dean of Graduate and Continuing Education.

**Step 4**

If, within ten working days of the receipt of the request in Step 3, the Associate Vice President for Academic Affairs or the Dean of Graduate and Continuing Education is unable to resolve the matter to the satisfaction of all parties, then either party may, within ten working days, file a written request to review the matter with the Vice President for Academic Affairs.

**Step 5**

Within ten working days of the receipt of the request in Step 4, the Vice President for Academic Affairs shall inform the student, faculty member, Department Chair, and Associate Vice President for Academic Affairs of the results of his review.

**The appeal process ends at this point.**

# Enhanced Learning Opportunities

**Off-Campus Courses:** Matriculated students may enroll in off-campus courses at regionally accredited institutions in academic disciplines that are compatible with the WSC curriculum. To assure applicability and transferability, matriculated students must have approval in writing from their faculty advisor and the Registrar before enrolling in courses at other accredited institutions. Copies of course descriptions from college catalogs or other publications for each course must be attached Forms are available at the Registrar's Office (S-112).

**Summer Programs:** Worcester State College offers a variety of undergraduate and graduate courses during the summer months. Two six-week sessions, the first beginning in early June and the second beginning in early July, provide intensive enrichment opportunities for students working toward completion of degree requirements or upgrading and enhancing professional skills. The summer schedule is usually available in April. Course listing is on website, www.worcester.edu/summer

**Credit by Examination:** In addition to the Advanced Placement examinations administered by the College Entrance Examination Board through high schools, other opportunities to challenge subject areas for credit are available.

**Department Challenge:** When appropriate and with the sanction of the faculty advisor, students may request and complete a department-developed examination to translate competencies into credit. A limited number of departments offer this as an option, so consult the appropriate department chair. However, in most cases it is recommended that students explore the CLEP option.

**College Level Examination Program (CLEP):** These standardized examinations offered on campus through the Educational Testing Service confer college credit in two categories—general examinations, which include English, humanities, mathematics, social sciences, and natural sciences; and examinations in specific subjects. Additional information and applications are available through the Counseling and Career Services Center.

**National League for Nursing (NLN) Examinations:** The NLN examinations are administered to candidates for the upper division program in nursing. Consult the Chair, Nursing Department, for further information.

**American Chemical Society:** Students may challenge Chemistry for the Allied Health Professions by contacting the Chemistry Department, New York Board of Regents. In some cases, credit can be awarded for these examinations.

**Internships and Professional Experiences:** Matriculated students in good academic standing are eligible for Internship placement if they meet departmental requirements for such placement. No more than 12 academic credits may be applied toward graduation. An internship is a form of experiential learning that permits a WSC matriculated student to convert theory into action. An internship may be undertaken with or without the expectation

of academic credit. If credit is to be granted, however, the internship must be monitored and evaluated by the appropriate College department and a grade awarded at its completion. The internship can be constructed according to any of a number of models including professional apprenticeships, work experience, field research, career exploration, socio-political action and service learning. Because students must be actively involved in the development of an internship placement—by developing a resume, preparing necessary correspondence, or being interviewed—they should contact the faculty sponsor in the semester prior to the proposed internship. The internship contract sets forth the responsibilities of each party so that each understands his or her specific role in the educational field experience. Each program is designed to accommodate and articulate the personal goals of the student, the academic goals of the department, and the needs of the participating off-campus organization. Information about available internships is regularly relayed to, and publicized in, appropriate academic departments. The following conditions apply to all internships:

- no more than 12 units of internship credit may count toward a degree
- students undertaking internships must be in good academic standing
- only juniors and seniors may undertake internships
- a copy of the student's internship contract with the sponsoring department must be filed with the Registrar's office.
- Students are responsible for providing their own transportation for off-campus learning experiences.

**The Washington Center for Internship and Academic Seminars**

The Washington Center for Internships and Academic Seminars

Worcester State College participates in this internship program that combines experience in public, private, or non-profit sectors in Washington, D.C. with academic learning. The internship provides a unique opportunity to explore career paths while sampling the intellectual and cultural diversity of our nation's capital. This internship must be taken for credit so it is imperative that a student meets with the faculty sponsor early in the semester prior to the proposed participation.

A student's financial aid may be applied toward program costs. In addition, significant scholarship monies are available through The Washington Center and the Massachusetts Board of Higher Education for students with a minimum GPA of 3.0 and who are residents of Massachusetts. Tuition and fees are also waived for the semester for students who meet both the residency and GPA criteria. It should be noted that scholarship/financial aid monies are awarded based on the most recent policies put forth by OSFA and the Massachusetts Board of Higher Education and are subject to change.

Each semester The Washington Center Regional Recruiter visits the campus to speak with students about the internship program. These visits are coordinated through Career Services. Interested students can obtain application forms from the Career Services office, located in the Student Center, third floor, or visit the program's website at www.twc.edu for more information. The faculty sponsor and Career Services Campus Liaison's signatures are required before the application can be submitted.

**Pre-Law Program:** A program of preparation for law school is available through the Department of History and Political Science.

**Pre-Medical, Pre-Dental, Pre-Veterinary and Pre-Pharmacy Advisory Program:** The College offers an advisory program for students interested in preparing for medical, dental, veterinary or pharmacy studies. Students interested in medicine or dentistry may pursue study in any of the academic majors of the College. It is the obligation of the students to check with the professional school(s) to which they intend to apply for exact requirements. Nearly all medical and dental schools require one year each of the following laboratory

courses: General Chemistry, Organic Chemistry, Biology and Physics. In addition, many schools require two years of a modern foreign language, one year of English (including composition), and Mathematics through Calculus. Regardless of major, the student is advised to select CH 120 and CH 121, General Chemistry I and II, and BI 105 and BI 106, Introduction to Biology I and II in their freshman year.

Students interested in medicine, dentistry, veterinary medicine, optometry, podiatry or osteopathy should consult both the major advisor and the Chair of the Pre-Medical and Pre-Dental Advisory Committee as soon as possible following matriculation. Students are advised to complete their science requirements before the end of their junior year and to take the national pre-professional exam (e.g., MCAT, DAT) during the Spring semester of their junior year. During the junior year, students must arrange an interview with the Pre-Medical and Pre-Dental Advisory Committee. The current chair of the Pre-Medical and Pre-Dental Advisory Committee is: Dr. Alan Cooper, Chemistry.

**Colleges of Worcester Consortium, Inc.:** Thirteen Central Massachusetts colleges, along with a number of Worcester area organizations, comprise the Worcester Consortium for Higher Education. In addition to cultural activities, interdisciplinary programs, and other opportunities, the Consortium provides a cross-registration service whereby full-time day students of member colleges may register at no additional cost for one course per semester at another campus. A Consortium shuttle bus provides transportation among campuses throughout the day.

Members of the Consortium, in addition to Worcester State College, are Anna Maria College, Assumption College, Atlantic Union College, Becker College, Clark University, College of the Holy Cross, Mass College of Pharmacy and Health Science, Nichols College, Quinsigamond Community College, Tufts University, University of Massachusetts Medical School, and Worcester Polytechnic Institute. Among other organizations participating with the Consortium to enrich local college curricula are the American Antiquarian Society, Worcester Craft Center, The International Center, Old Sturbridge Village, radio station WICN, Worcester Art Museum, Worcester Foundation for Experimental Biology, Worcester Historical Society, Worcester Horticultural Society, and New England Science Center.

Cross registration opportunities (at no additional cost) exist only for our matriculated under graduate students taking day classes at one for the member Colleges during the Fall and Spring semesters. Students must be in good academic standing to take advantage of the one course per semester cross-registration option. Student eligibility and course applicability is determined by the Registrar's Office. Further information is posted on the Consortium website — www.cowc.org.

**College Academic Program Sharing (CAPS):** A student enrolled at any of the nine Massachusetts State Colleges may enroll for up to 30 credits at any other state college without going through formal registration procedures. Credits are automatically transferred to the student's home institution, and the student pays no additional tuition or fees. To take part in the program, degree-seeking students must have attained sophomore status and be in good academic standing at Worcester State College. For further information consult the Registrar.

**New England Regional Student Program:** The College participates in a regional cooperative program administered by the New England Board of Higher Education. The New England Regional Student Program offers qualified residents the benefits of in-state tuition plus 50% in certain programs at any New England state university, college, two-year college, or technical institute. The purpose of the program is to expand higher educational opportunities for New England residents by making available, on an equal basis, those programs not commonly offered at every institution. Information about the program can be obtained from the Admissions Office, from any guidance counselor, or from the New England Board of Higher Education, 45 Temple Place, Boston, MA 02111.

**American Antiquarian Society Seminar:** Each year the American Antiquarian Society and five Worcester Colleges—Assumption College, Clark University, College of the Holy Cross, Worcester Polytechnic Institute and Worcester State College—sponsor a research seminar at the Society library. The seminar is conducted by a scholar familiar with the Society's extensive early American History collection, and the seminar topic is related to his or her field of research. Normally two students are chosen from each of the five colleges to participate. The seminar topic and research methods combine several disciplines, and students from a wide variety of majors have participated in this unusual undergraduate opportunity. Further information is available from the Department of History and Political Science.

**Workplace ESL (English as a Second Language)** For a company or organization to function well, its employees must be able to communicate effectively. At Worcester State College, our Workplace ESL Programs can be tailored to the needs of your organization. Most employees are eager and pleased to be able to increase their English language skills and thus become more valuable in the workplace. Our Workplace ESL Programs emphasize the basic skills of listening speaking, reading and writing, with specialization in vocabulary and American expressions (slang and idioms) used everyday. There is often a special need for employees to learn vocabulary used in your workplace, and we work with management to identify and offer that specific terminology. Education in English as a Second Language gives employees a sense of empowerment and a sense that they belong to their new culture. This includes a sense of belonging to the culture of their workplace. These employees often become more aware of the entire corporate atmosphere, and identify more strongly with their workplace, getting more involved and more comfortable being part of a team, giving suggestions and being concerned with safety issues. We also offer a program for managers to learn conversational Spanish that will help them to communicate more effectively with new employees. For more details, contact Thomas Belanger, Director for Business and Industry 508-929-8126.

# Reserve Officer Training Corps (ROTC)

**Air Force**

Worcester State College students have the opportunity to participate in Air Force ROTC through the AFROTC Detachment at Worcester Polytechnic Institute. The Air Force ROTC program is voluntary and open to all students who seek the challenge of being an officer in the United States Air Force upon graduation from college.

The Air Force ROTC academic program includes a one-hour, non-credit course both semesters of the freshman year; a one-hour, one credit course both semesters of the sophomore year; and three-hour, three credit courses each semester of the junior and senior years. The courses cover Air Force organization and history the freshman and sophomore years, and management, leadership, American defense policy, regional studies, and military law during the junior and senior years. Additionally, AFROTC cadets participate in a one and one-half hour military training period each week.

All AFROTC cadets also attend Air Force ROTC field training during the summer between their sophomore and junior years. Cadets are paid while at field training and will receive travel pay to and from the Air Force base hosting field training. Students participating in the first two years of AFROTC will attend a four-week field training session, while students entering AFROTC during their sophomore year will attend a six week training program.

By participating in AFROTC students can compete for scholarships ranging from two years to three years in duration. These scholarships cover tuition, most fees, and textbooks. A

monthly tax-free subsistence allowance of $100 is paid to all scholarship students, and to all non-scholarship cadets in the last two years of the Air Force ROTC program.

To participate in Air Force ROTC students must be United States citizens (or naturalized by the end of their sophomore year), of good moral character, and in sound physical condition. Students interested in Air Force ROTC should write to the Professor of Aerospace Studies, AFROTC Detachment 340, Worcester Polytechnic Institute, 100 Institute Road, Worcester, MA 01609-2280, or call 508-831-5747 for further details and the latest information on scholarship opportunities.

**Army**

The Army Reserve Officers' Training Corps (ROTC), is offered by Worcester Polytechnic Institute and is available to all Worcester State College students. American citizens who are physically qualified and who satisfactorily complete the entire four-year program will be commissioned in the United States Army. Graduates serve as second lieutenants in the Active Army or the reserve components. Delayed entry on active service for the purpose of graduate school is available. Military science is designed to complement other instruction offered by Worcester State College. Emphasis throughout is on the development of individual leadership abilities and preparation of the student for future important leadership roles in the Army. There are two variations of ROTC available to the student who desires to participate: a four year program, in which students participate in required military science courses and activities for four academic years. Attendance at a six-week advanced training camp is required between the third and fourth year.

The two-year ROTC program is intended for students in their second year of college who want to enroll in ROTC in their junior year. It begins with a six-week basic summer training camp, with pay, between the sophomore and junior years. Upon successful completion of basic camp, the student participates in the third year of ROTC and attends the advanced camp during the next summer. As an alternative, an enlisted member of the Army National Guard or Army Reserve who has completed basic training can qualify for the two-year ROTC Simultaneous Membership Program (SMP).

All students enrolled in the last two years of the program receive a tax-free cash stipend of $100 each month in school. Two- and three-year Army ROTC scholarships are available for students who wish to apply. The scholarship is based on the achievements of the applicants, not the financial status of their families. The ROTC scholarship covers tuition and most required fees, paid directly to the college. It also pays directly to the student $450 per year for books and a $100 monthly cash stipend, each month in school. Both are tax free. Members of Army Reserve and National Guard may participate in the ROTC/SMP as college juniors, receiving a reserve officer commission upon successful completion of the military science requirements. SMP cadets remain members of their unit and earn E-5 drill pay in addition to the tax-free stipend of $100 per month through ROTC. Additionally, Massachusetts National Guard ROTC/SMP members receive free tuition at state schools.

Students interested in Army ROTC should contact the Professor of Military Science, Military Science Department, Worcester Polytechnic Institute, 100 Institute Road, Worcester, MA 01609, or call 508-752-7209. Offices are located in Room 28A, Harrington Auditorium.

**Navy**

Programs leading to a commission as an officer in the United States Navy or Marine Corps are available to all qualified Worcester State College male and female students through cross-enrollment in the Naval Reserve Officers Training Corps Unit at the College of the Holy Cross. Students can participate as Scholarship or College Program (non-scholarship) students in either a four-year or two-year Naval ROTC program. The basic qualifications for enrollment in the NROTC Program are United States citizenship, good moral character, and sound physical condition.

High school students, in the Fall of their senior year, can apply through the national competition for three- and four-year Naval ROTC Scholarships. If selected, they receive full tuition, payment of most fees, and a $150 per month tax-free stipend. Along with their college degree requirements, Naval ROTC students are required to complete one Naval Science course each semester and also participate in one two-hour weekly unit drill period. Additionally, scholarship NROTC students participate in summer training cruises after their freshman, sophomore, and junior years. The summer cruises are four to six weeks in length, with pay and allowances, and afford an opportunity for practical experience and travel. Upon successful completion of the NROTC program, graduates are commissioned ensigns in the Navy or second lieutenants in the Marine Corps and are required to serve at least four years on active duty.

First year and sophomore students can apply for the two-year Naval ROTC Scholarship Program during their first two years in college. If selected, they receive full tuition, payment of most fees, and a $150 per month tax-free stipend. They attend a six week indoctrination course during the summer preceding their junior year at the Naval Science Institute at Newport, Rhode Island. Along with their remaining college degree requirements, they are required to complete one Naval Science course each semester and also participate in one two-hour weekly unit drill period during their junior and senior years. They are required to serve at least four years on active duty after commissioning.

Students can also participate as College Program (non-scholarship) students in either the four-year or two-year Naval ROTC Program. Students apply directly to the Professor of Naval Science at the College of the Holy Cross for enrollment. The program provides military uniforms and during the junior and senior years a subsistence allowance of $150 per month. College Program students are required to complete one Naval Science course each semester and also participate in one two-hour weekly unit drill period. They also participate in one summer training cruise preceding their senior year. Once enrolled in the NROTC Program, College Program students are eligible to apply for scholarships based on their academic record and performance in the Naval ROTC Unit. Scholarships of one, two, and three years are available.

Upon successful completion of the program, College Program students are commissioned in the Naval or Marine Corps Reserve and are required to serve at least three years on active duty after commissioning. For additional information about the Naval ROTC Program, contact the Professor of Naval Science, Naval ROTC Unit, College of the Holy Cross, Worcester, MA 01610-2389; 508-793-2434.

# Services for Students

Student Services is a collaboration of varied offices designed to enhance each student's experience at WSC. We offer career counseling, provide assistance for students with physical and/or learning disabilities, and present programs for students who may need additional academic preparation for college success.

## Multicultural Affairs

### Alternatives for Individual Development (A.I.D)

Students who think they may require substantial academic support to adjust to the demands of college may consider applying to A.I.D. Typical participants of A.I.D. attended urban public high schools that may not have had the overall resources to provide the background and training common to students who attended private or suburban secondary schools.

A.I.D. utilizes a more comprehensive, intensive approach to increase student effectiveness. A.I.D. involves all aspects of college adjustment, the ultimate aim being to increase student sophistication as a means of enhancing student academic achievement and ensuring goal fulfillment. Inquiries can be made at 508-929-8049.

Some applicants may be required to participate in the six-week academic enrichment summer program.

### Upward Bound

The Upward Bound Program at Worcester State College is designed to encourage eligible high school students to persist in school through graduation and to seek a post-secondary education.

The Program actively recruits students who show motivation and desire to succeed and who are college bound. Included in these categories are: first generation, minority and low income students.

Services include: college visits, workshops and seminars in college admissions and financial aid assistance, career counseling, individualized or group tutoring and cultural enrichment activities.

The Program has two main components – the Saturday component and the summer residential academy.

## Athletics and Recreation

The Athletics and Wellness office is an integral part of Worcester State College's efforts to provide a high quality, affordable education and supportive environment that promotes the total development of our students. The staff provides students with the opportunities to grow and learn through intercollegiate varsity athletics, intramurals, and wellness programs. Participation in these activities fosters physical, mental, leadership and life skills development, while enhancing self-discipline and sportsmanship qualities.

In all of its programs, the Athletic and Wellness office is cognizant of its responsibilities as an educational support component of the College.

As a Division III member of the National Collegiate Athletic Association (NCAA), the Massachusetts State College Athletic Conference (MASCAC), the Eastern College Athletic Conference (ECAC), and the New England Football Conference (NEFC), the College offers baseball, basketball, cheerleading, cross-country, field hockey, football, golf, ice hockey, soccer, softball, tennis, track and field, volleyball and women's lacrosse. Crew is offered at the club level.

For those students interested in competing on a less formal level, the College offers an extensive intramural sports program. The program includes touch football, coed football, basketball, tennis, street hockey, softball, soccer, volleyball, and golf. Any student who wishes to participate in intramural sports, regardless of ability or past experience is urged to do so. For the recreational athlete, the College also offers open gym time as well as a modern, well-equipped fitness center. Students may also find part-time employment through the intramural director as supervisors and officials.

## Campus Ministry

Campus Ministry provides religious services, pastoral counseling and a variety of programs aimed at the spiritual and psychological development of the College Community. Under the direction of a full-time Campus Minister, its staff consists of a Catholic Priest, several Protestant Campus Ministers, and the United Campus Ministry, which includes 20 available clergy representing 13 denominations. The ministry is located in the Campus Ministry House, behind Dowden Hall. The House is open daily and provides a quiet place to study, watch television, listen to the stereo, cook a meal, or just relax and meet other people. Campus Ministry provides an interfaith approach to ministry with programs and services open to all students and the College Community at large.

## College Police Department

The College Police Department is responsible for the safety and security of the Worcester State College Community: students, faculty, staff, and guests. Security is provided 24 hours a day throughout the calendar year by a full-time staff of 15 sworn officers and 3 residence hall lobby security officers. College police officers enforce the rules and regulations of the College and the General Laws of the Commonwealth of Massachusetts. **The College Police/Parking Clerk's Office is located on the first floor of Wasylean Hall.**

## College Bookstore

All required course materials for classes are available at the WSC Bookstore located in the Student Center. This full service bookstore offers new and used textbooks, as well as school supplies, specialty books and a wide variety of gifts and clothing imprinted with the WSC logo.

We stock many used copies of textbooks, but the supply is limited and they sell quickly. Shop early for the best selection of used books. To make the book selection process for classes easier, bring your class schedule. Textbooks can be returned for a full refund within 5 days of the start of classes and must be accompanied by a receipt. Textbooks can also be purchased online at **www.efollett.com.**

The Bookstore can also buyback many of your textbooks at the end of the semester. Bring your unwanted textbooks back to the Bookstore during finals and turn them into cash.

Bookstore hours are as follows:

Fall & Spring Semester Hours
8:30 a.m. — 5 p.m. Monday–Thursday
8:30 a.m. — 4 p.m. Friday

Summer Semester Hours
9 a.m. — 4 p.m. Monday–Friday

Extended Hours
We are open extended hours at the beginning of each semester.
Please call 508-929-8591 or visit our website (www.wsc.bkstr.com) for details.

# Counseling Services

### Counseling Office

The Counseling Office assists students in coping with personal issues that interfere with their academic and personal development and sense of well-being. Individual counseling is available to anyone seeking assistance. Specialized counseling is available for individuals who have experienced sexual maltreatment at any point in their life. Support groups (as needed) are also available during the academic year. The staff of the Counseling Office is also able to assist students with advising and other academic issues.

The Office provides services to undergraduate and graduate students and to Worcester State College alumni, and is located on the third floor of the Student Center. To make a Counseling Center appointment, please call 508-929-8072.

### Career Services

Career Services provides students with the opportunity to explore career fields and occupations and conduct self-assessment, link career planning to academic planning, obtain experience in a variety of professional areas, and make a successful transition from college to career or to further schooling. We have a wide variety of services and resources available. Please visit our website at **wwwfac.worcester.edu/careerservices**, or visit our office and the Career Resource Center on the third floor of the Student Center. Appointments with a Career Counselor are available year round to currently matriculated students and at certain times of the year to alumni. Please call us at 508-929-8072 to make an appointment or if you have any questions. We look forward to serving you.

### Disability Services Office (DSO)

In accordance with Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990 (ADA), the College is committed to providing equal opportunity to its academically qualified students who are disabled. The Disability Services Office (DSO) is the primary support system on campus for students with disabilities. Services have been established to ensure that the facilities, activities, and programs at Worcester State College are accessible to all students. A learning specialist is available to students registered with the DSO.

Current and comprehensive documentation is required from all students who request services. Based on the documentation and an intake interview with the DSO Coordinator, relevant and reasonable accommodations are provided to students with physical, learning, and neurological/emotional disabilities according to the individual's unique needs. It is the responsibility of the student to request these accommodations on a semester-to-semester basis.

It is recommended that you contact the DSO personnel to discuss any concerns you might have regarding specific services. A visit to the campus is also recommended.

The DSO is located on the second floor of the Student Center, Room 206. The Coordinator can be reached at 508-929-8733.

# Health Services Office

The Health Services Office is located in the Gymnasium Building off the main foyer. During the academic year a full-time nurse practitioner, two part-time practitioners, and a part-time physician staff the office. Office hours are Monday, Tuesday and Thursday 8 a.m. to 8 p.m.; Wednesday 8 a.m. to 6 p.m.; and Friday 8 a.m. to 4 p.m. During the summer months when the Health Services Office is closed, emergencies are referred to College Police.

Services include acute and routine medical care, health screenings, immunizations, allergy injections and specialty referral. Treatment is completely confidential. Students' health history forms remain on file in this office, health insurance brochures and claim forms are available.

**Health Forms and Immunization**

Each full-time undergraduate and graduate student, and all full and part-time students in health science programs involving patient contact (Nursing, Occupational Therapy, and Communication Sciences and Disorders) must present evidence of immunization in order to register for classes. Massachusetts law specifies the following immunizations: 1) at least one dose of mumps and rubella vaccine(s) given at or after 12 months of age; 2) two doses of live measles vaccine given at least one month apart beginning at or after 12 months of age; 3) a booster dose of tetanus/diphtheria within the last ten years; and 4) three doses of Hepatitis B vaccine. Effective August 2005, all new, full and part-time, undergraduate and graduate students in a degree-granting program must be immunized with the Meningococcal vaccine within the last 5 years or the student/parent/legal guardian may sign the Meningococcal Information and Waiver Form developed by the Massachusetts Department of Public Health. All international students must have proof of a negative mantoux test performed in the USA. In the case of positive test results evidence of a negative chest x-ray is required. Tetanus immunization, MMR immunization, Hepatitis B immunization and mantoux testing are available at Student Health Services free of charge, for accepted students. A copy of an immunization record from a school in the Commonwealth indicating receipt of the required immunizations may be presented; or in the case of measles, mumps, or rubella, laboratory evidence of immunity. The law provides for medical and/or religious exemptions. Provision is also made to allow students to register on condition that the required immunizations are obtained within thirty days of registration. The exception to the aforementioned is the meningitis requirement which needs to be obtained at least two weeks prior to the beginning of classes.

Students must submit the Worcester State College Report of Medical History form, completed by a physician, in order to register for classes. All resident students must have a complete Worcester State College Health Form in order to move into the residence halls.

**Health Insurance**

The Commonwealth of Massachusetts requires that students must be covered by health insurance under their own policy or purchase the Worcester State College health insurance plan. Health insurance is required for undergraduate students if they register for nine (9) or more semester hours of credit. Coverage for graduate students is required if they register for seven (7) or more semester hours of credit.

At the time of fall and spring registration, all students will be enrolled in and charged for the Worcester State College Student Health Insurance Program. Students who do

not wish to participate in the College's plan must return the completed waiver request form **that is enclosed with their bill**. They may also waive the insurance on-line at www.universityhealthplans.com. Both the completed waiver form and proof of insurance coverage should be returned with payment of their bill to the Bursar's Office. Students who enroll only in summer session classes are not required to participate.

# Lancer Dining Services

Worcester State College Dining Services is managed by Chartwells, a Division of Compass Group North America. Chartwells is proud to present to you the "Profiles in Good Taste" at Worcester State College. It's an unforgettable dining experience; passion and practicality; ingenuity and sensibility. Great food and exciting environments combined with our pride of service transform the ordinary into the unexpected.

### Meal Plan Options

**The 19 MEAL PLAN:** Any 19 meals per week at the all-you-can-eat Lancer Loft plus $50 in "flex" dollars, $1,150 per semester. **The 14 MEAL PLAN:** Any 14 meals per week at the all-you-can-eat Lancer Loft, plus $125 in "flex" dollars, $1,150 per semester. **The 10 MEAL PLAN:** Any 10 meals per week at the all-you-can-eat Lancer Loft, plus $175 in "flex" dollars, $1,150 per semester. One of the above meal plans is mandatory for all Freshmen, Sophomore, Junior, and first-year resident students. In addition, there are two Optional Board Plans. **The 7 MEAL PLAN:** Any 7 meals per week at the all-you-can-eat Lancer Loft plus $450 in "flex" dollars, $1,150 per semester. **The 10 MEAL SUPER PLAN PLUS $300** in "flex" dollars, $1,250 per semester.

Additionally, the offering of one of the three **BLOCK PLANS** would be mandatory for returning students. Any **20** meals served per semester with $120 in "flex" dollars, $260 per semester; any **40** meals per semester with $120 in "flex" dollars, $380 per semester; any **75** meals per semester with $150 in "flex" dollars, $625 per semester . "Flex" dollars can be used at any dining service facility on campus. It's a Food Credit Card — you never have to carry cash with you again for food on campus.

**$50 commuter meal plan** per semester for Freshmen and first-year transfer commuters.

### Locations and Hours of Operation

**The Food Court** is located on the lower level of the Student Center. Open Monday through Thursday 8:30 a.m. to 6 p.m. Friday 8:30 a.m. to 4 p.m.

**The Lancer Loft Café,** an all-you-can-eat restaurant, is open Monday through Friday from 7:30 a.m. to 10:15 a.m. for breakfast. Lunch is served from 11:30 a.m. to 2 p.m.; and dinner from 4:30 p.m. to 7 p.m. Saturday and Sunday Brunch is served 11 a.m. to 1 p.m. and dinner is 4 p.m. to 6 p.m. Snow days the dining hall will be open from noon to 7 p.m.

Your guests, faculty, and staff can enjoy dining at the all-you-can-eat Lancer Loft for the following prices: Breakfast $4.50; Lunch or Brunch $6.25; and Dinner $7.50 per person only. A validated Worcester State College I.D. Card must be presented at all times to use the dining services. The I.D. Card can only be used by the student who purchased the meal plan.

**Chartwells Java Junction Coffee Shop** is located in the entrance to the new Residence Hall. Go to Chartwells website for more information on hours and promotions.
**http://www.mycampusdining.com/worcesterstatecollege/**

# Residence Life and Housing Services

The mission of the Office of Residence Life and Housing is to assist students in their social and intellectual development as it relates to functioning effectively as members of the college community, the Commonwealth of Massachusetts and as citizens of the larger global community. Residence Life and Housing is committed to providing residents with an inclusive living and learning experience that is conducive to achieving their educational and interpersonal goals.

Students may choose to live in one of three residential facilities on campus:

Chandler Village accommodates 420 students. It is a unique living area with 63 apartments in 26 interconnected townhouses. The different apartments accommodate four to eleven people in single and double occupancy bedrooms. Each unit features newly furnished bedrooms, common living and kitchen areas. Chandler Village has undergone a renovation that includes sprinkler systems for all units. There are several units accessible to persons with disabilities.

Dowden Hall, accommodating 213 students, is a traditional residence hall overlooking the lower campus. Dowden Hall is a substance-free facility. It includes single and double rooms with study and recreational lounges on each floor. Dowden Hall is accessible to persons with disabilities and an electronic door access system.

Located in front of Chandler Village and Dowden Hall, Wasylean Hall, opened in August 2004 is a suite style building that accommodates 348 students. The suites are designed to house four and six people. Each unit contains a common living and kitchen area. There are multiple study and recreational lounges throughout the building. Wasylean Hall is also accessible to persons with disabilities and has an electronic door access system. There is a Ritazza coffee shop, open to the campus community on the first floor. Also, there is the central mailroom for all resident students. Wasylean Hall is home to the Office of Residence Life and Housing and College Police.

See pages 53-54, Room and Board, for additional information.

# Student Activities and Organizations

A variety of cultural, social and service activities complement classroom instruction at the College including films, lectures, novelty acts, comedy, and live musical performances. Students are encouraged to participate in one or more of the student organizations: the Student Events Committee, WSCW radio, Dance Company, Yearbook, The Student Voice Newspaper, Gay/Straight Alliance, Student Government Association, Third World Alliance, Crew Club, Campus Ambassadors, special interest groups, and honor societies, more than 25 in all.

There is an active Student Government Association with a President, Student Trustee, and a Student Senate comprised of elected representatives from each class. Annual campus events include Welcome Week, Family/Homecoming Weekend, Senior Capping, Winter Week, Commuter Appreciation Week, Spring Week, and Multicultural Festival.

# Veterans Information

The Registrar's Office provides general information of interest to veterans and dependents of veterans enrolled at the College. Spouses and dependents of 100% disabled or deceased veterans wishing to inquire about possible veterans' benefits should contact this office.

Students who receive any form of Financial Aid or Veterans Educational benefits should consult with the respective office PRIOR to dropping or withdrawing from a course. Reducing hour credit load may adversely affect eligibility to receive Financial Aid, Veterans Educational benefits. In addition, most private insurance companies require that students be full-time (12 credits or more) to be eligible for coverage.

# Discipline Information

**College Switchboard: 508-929-8000 Web Site: http:www.worcester.edu**

| Discipline | Location<br>Sponsoring Dept | Phone<br>Departmental | Fax<br>Website |
|---|---|---|---|
| Art | Administration Building (A311)<br>Visual Performing Arts | 508-929-8145<br>www.worcester.edu/visart | 508-929-8166 |
| Biology | Science & Tech Bldg (ST310)<br>Biology | 508-929-8569<br>www.worcester.edu/biology | 508-929-8148 |
| Biotechnology | Science & Tech Bldg (ST310)<br>Biology | 508-929-8569<br>www.worcester.edu/biology | 508-929-8148 |
| Business Adm. | Sullivan Academic Center (S203)<br>Business Administration &<br>Economics | 508-929-8091<br>www.worcester.edu/busines | 508-929-8048 |
| Chemistry | Science & Tech Bldg (ST410)<br>Chemistry | 508-929-8583<br>www.worcester.edu/chemistry | 508-929-8171 |
| CommSci Disorders | Science & Tech Bldg (ST 115L)<br>Communication Sciences<br>& Disorders | 508-929-8055<br>www.worcester.edu/comdisor | 508-929-8175 |
| Communications | Learning Resources Center (L120D)<br>Communications | 508-929-8829<br>www.worcester.edu/communic | 508-929-8170 |
| Computer Science | Science & Tech Bldg (ST110)<br>Computer Science | 508-929-8832<br>www.worcester.edu/cs | 508-929-8156 |
| Economics | Sullivan Academic Center (S203)<br>Business Administration &<br>Economics | 508-929-8091<br>www.worcester.edu/busines | 508-929-8048 |
| Education | Sullivan Academic Center (S226)<br>Education | 508-929-8584<br>www.worcester.edu/educate | 508—929-8164 |
| English | Sullivan Academic Center (S303)<br>Languages & Literature | 508-929-8154<br>www.worcester.edu/english | 508-929-8174 |
| French | Sullivan Academic Center (S303)<br>Languages & Literature | 508-929-8154<br>www.worcester.edu/french | 508-929-8174 |
| Geography | Science & Tech Bldg (ST410)<br>Physical & Earth Sciences | 508-929-8583<br>www.worcester.edu/geog | 508-929-8171 |
| Health | Science & Tech Bldg (ST110Q)<br>Health Sciences | 508-929-8134<br>www.worcester.edu/health | 508-929-8176 |
| History | Sullivan Academic Center (S327)<br>History & Political Science | 508-929-8162<br>www.worcester.edu/history | 508-929-8155 |
| Math | Sullivan Academic Center (S145)<br>Mathematics | 508-929-8520<br>www.worcester.edu/math | 508-929-8197 |

| Discipline | Location<br>Sponsoring Dept | Phone<br>Departmental | Fax<br>Website |
|---|---|---|---|
| Music | Administration Building (A311)<br>Visual Performing Arts | 508-929-8145<br>www.worcester.edu/music | 508-929-8166 |
| Natural Science | Science & Tech Bldg (ST410)<br>Physical & Earth Sciences | 508-929-8583<br>www.worcester.edu/natsci | 508-929-8171 |
| Nursing | Science & Tech Bldg (ST222)<br>Nursing | 508-929-8129<br>www.worcester.edu/nursing | 508-929-8168 |
| Occ. Therapy | Science & Tech Bldg (ST210B)<br>Occupational Therapy | 508-929-8624<br>www.worcester.edu/ot | 508-929-8178 |
| Philosophy | Sullivan Academic Center (S316)<br>Philosophy | 508-929-8145<br>www.worcester.edu/philosophy | 508-929-8166 |
| Physical Education | Science & Tech Bldg (ST110Q)<br>Health Science | 508-929-8134<br>www.worcester.edu/physed | 508-929-8176 |
| Physics | Science & Tech Bldg (ST410)<br>Physical & Earth Science | 508-929-8583<br>www.worcester.edu/physics | 508-929-8171 |
| Political Science | Sullivan Academic Center (S327)<br>History & Political Science | 508-929-8162<br>www.worcester.edu/polsci | 508-929-8155 |
| Psychology | Sullivan Academic Center (S241)<br>Psychology | 508-929-8159<br>www.worcester.edu/psychology | 508-929-8172 |
| Sociology | Sullivan Academic Center (S218)<br>Sociology | 508-929-8159<br>www.worcester.edu/sociology | 508-929-8172 |
| Spanish | Sullivan Academic Center (S303)<br>Languages & Literature | 508-929-8154<br>www.worcester.edu/spanish | 508-929-8174 |
| Theatre | Administration Building (A311)<br>Visual Performing Arts | 508-929-8145<br>www.worcester.edu/theatre | 508-929-8166 |
| Urban Studies | Sullivan Academic Center (S129)<br>Urban Studies | 508-929-8940<br>www.worcester.edu/urstud | 508-929-8144 |
| Visual/Perform Arts | Administration Building (A311)<br>Visual Performing Arts | 508-929-8145<br>www.worcester.edu/vpa | 508-929-8166 |

# Financial Information

***The schedule of fees, tuition, methods of payment and refund policies are those in effect at the time of publication. They are subject to change without notice.***

## Tuition and Fees

Tuition and fee schedules are presented separately for undergraduate day programs, and evening undergraduate, graduate and summer programs. Certain students may be eligible for tuition waivers. Information about eligibility requirements can be found in the section on financial aid.

## Undergraduate State-supported Programs

In addition to the non-refundable application fee of $20 for Commonwealth residents, $20 for nonresidents, students must upon acceptance pay a $75 non-refundable tuition deposit that will be credited towards tuition upon matriculation and an orientation fee for $75. Students are billed for all semester charges following completion of registration.

Payment of all charges is due in full by the due date specified on the student bill. Students whose accounts have not been paid in full, or otherwise cleared by the finance office, will be subject to cancellation of class enrollment. Reinstatement of classes after the add/ drop period requires approval by the Office of Academic Affairs and payment of a $75 reinstatement fee. The College reserves the right to withhold grades, transcripts, and/or diplomas from any student with outstanding financial obligations.

Payment may be made by check, money order, or credit card (MasterCard, Visa, Discover). If payment is made by check, the cancelled check will serve as the student's receipt. If a student remits payment with a check that is returned because of insufficient funds, he or she must make any future payments to the College in the form of a certified check, bank check, or money order. **A returned check fee of $15 will be imposed for each instance of a personal check in payment of any College charge that is returned not honored.** Students will incur all costs of collection if the College must place their accounts with a collection agency and with the Commonwealth of Massachusetts for intercept of other State payments (tax refunds, etc. ...).

**Monthly payment plans** through external agencies are available for families who wish to avoid a large outlay of cash at the beginning of each semester. For further information, contact the Bursar's Office.

Tuition and fees are subject to change by vote of the Legislature, Board of Higher Education, or Board of Trustees.

# Tuition and Fees – Fall 2005/2006

| State Supported Courses | Annual | Per Semester | Per Cr. Hour |
|---|---|---|---|
| ***Cost for Full-Time In-State Student*** | ***$5,079.00*** | ***$2,539.50*** | ***207.46*** |
| **Tuition:** | | | |
| MA Resident | $ 970.00 | $ 485.00 | $ 40.42 |
| Non-Resident | 7,050.00 | 3,525.00 | 293.75 |
| N.E. Regional | 1,455.00 | 727.50 | 60.63 |
| **Fees:** | | | |
| General Fee | 3,616.00 | 1,808.00 | 150.67 |
| Student Activity Fee | 68.00 | 34.00 | 2.83 |
| Student Health Services Fee | 85.00 | 42.50 | 3.54 |
| Capital Improvement Fee | 100.00 | 50.00 | na |
| Technology Fee | 240.00 | 120.00 | 10.00 |
| Total Fees | **$4,109.00** | **$2,054.50** | **$ 167.04** |
| **Residence Halls:** | | | |
| Residence Hall Fee | | | |
| Chandler Village I | $4,998.00 | $2,499.00 | |
| Chandler Village II | 4,308.00 | 2,154.00 | |
| Dowden Hall | 3,764.00 | 1,882.00 | |
| Single (Additional charge) | 400.00 | 200.00 | |
| New Residence Hall–single | 6,250.00 | 3,125.00 | |
| New Residence Hall–double | 5,850.00 | 2,925.00 | |
| Residence Activity Fee | 20.00 | 10.00 | |
| Tech Access Fee | 270.00 | 135.00 | |
| Resident Parking Fee – upper lot | 175.00 | 87.50 | |
| Resident Parking Fee – lower lot | 150.00 | 75.00 | |
| Board | 2,400.00 | 1,200.00 | |
| Board (Returning Students–minimum) | 540.00 | 270.00 | |
| Damage Deposit (1st Semester) | | 100.00 | |
| **Other:** | | | |
| Health Insurance | 1,229.00 | na | |
| Mass PIRG (Optional) | 14.00 | 7.00 | |
| Orientation Fee (New Students) | 75.00 | na | |
| Communter Meal Plan | 100.00 | 50.00 | |
| Parking Decal – Commuter | 100.00 | na | |

| Non-State Supported | | | |
|---|---|---|---|
| **Tuition:** | | | |
| Undergraduate | | | $120.00 |
| Graduate | | | |
| Communication Sciences & Disorders | | | $150.00 |
| Occupational Therapy | | | 150.00 |
| Master's in Nursing | | | 150.00 |
| All Other | | | 150.00 |
| **Fees:** | | | |
| Administrative Fee | | | |
| Undergraduate | | | $85.00 |
| Graduate | | | 85.00 |
| Technology Fee | | | 10.00 |
| Capital Improvement Fee – registered for more than 6 credits | 50.00 | | |
| Capital Improvement Fee – registered for 6 credits or less | 25.00 | | |
| Matriculated Undergraduate (Fall & Spring): | | | |
| Student Activity Fee | | | $ 2.83 |
| Student Health Service Fee | | | 3.54 |
| Undergraduate Fee | | | $ 6.37 |
| **Other:** | | | |
| Parking Decal – registered for more than 6 credits | $ 100.00 | per year | |
| Parking Decal – registered for 6 credits or less | 65.00 | per year | |
| Student Teaching | 75.00 | per course | |
| Lab Instruction | 60.00 | per course | |
| Art Model Fee | 25.00 | per course | |
| Field Work Supervision | | | $ 15.00 |
| Internship | | | 15.00 |

**Worcester State College**
**Affordability/Accessibility Disclosure Statement**
**2005 – 2006**

Annual Board of Higher Education
Affordability/Accessibility Disclosure Statement

One of the benefits of being part of public higher education in Massachusetts is the substantial subsidy students receive to enroll in Worcester State College. The annual cost information below is provided about the "average" student as a way of showing the amount of this subsidy.

| | |
|---|---|
| Full Operating Cost (per full-time student) | $ 13,313 |
| Less: State Operating Subsidy | (6,561) |
| = Tuition and Mandatory Fees (based on 30 credit hours) | 6,752 |
| Add: Average Residence Hall Fees | 5,034 |
| = Cost of Attendance Estimate | 11,786 |
| Annual Aid Available to Students | |
| Less: Average Annual Student Financial Aid | $ (6,037) |
| = Net Direct Price to Student | 5,749 |

Note: Additionally, a Federal Tax credit of up to $1,500 a year is available to students and parents who meet eligible guidelines. With this benefit, the average annual cost is $1791. For more information about tax credit eligibility, refer to Internal Revenue Service Instructions or ask your tax advisor.

## Tuition Surcharge

Students enrolled in credits that result in course registration in excess of 118% of academic degree program requirements will be assessed a tuition surcharge. These students are required to pay a surcharge of $235 per credit hour in excess of the 118% limit. Transfer and continuing education credits are not included in total credit hour when determining who will be assessed the surcharge.

## Room and Board

Students admitted to Worcester State College as resident students will be notified by the Director of Admissions. The information will be made available to the Residence Hall Staff and subsequent correspondence regarding residence hall assignments should be sent to the Director of Housing and Residence Life. Freshman residents, including freshman transfer students, are not permitted to have cars on campus.

Housing is guaranteed ONLY for the specified academic year for which a student signs an occupancy agreement.

Students residing in campus housing are assessed a room fee and a food service fee each semester. All students residing on campus are required to purchase a food service plan for the academic year. Upon acceptance, each resident student must pay a $150 non-refundable room deposit and a $100 damage deposit:

**For Freshmen and Transfer Students**

1. A separate check for $150 (non-refundable) must be submitted to the Admissions Office. Payment of this deposit and the resident's receipt of an agreement signed

by the College will reserve a space for occupancy; half of the deposit is applied to the room charge for each semester.

2. The $100 damage deposit will be billed with room rent.

**For Returning Residents**

1. A $150 room deposit (non-refundable) along with a signed Occupancy Agreement Form must be submitted at the time of room selection for the following year; half of the deposit is applied to the room charge for each semester.

2. The $100 damage deposit will be billed with room rent.

**Food Service Plan:** The food service plan is a board plan that permits the user to purchase a specific number of meals per week. Resident freshmen and sophomores, resident transfer students, and students residing in Dowden Hall are required to be on the full board plan for one academic year. This plan ($1,200 per semester) was designed to meet the needs of those students who plan to eat all their meals on campus. All other residents are required to purchase one of three block plans. The food service is available to meet with students to develop an appropriate food service plan. These plans are also available for commuter students. Food Service cards are issued to students at the beginning of the initial semester on the food service plan, or as needed. There is a charge for replacement of lost food service cards.

**Waiting List Procedure:** Freshmen and transfer students may submit to the Admissions Office a $150 room deposit to be considered for room assignment. All other students may submit to the Residence Hall Office a $150 room deposit along with a signed Occupancy Agreement Form to be considered for room assignment. Students' names will be placed on a waiting list until a room becomes available; assignments will be made on a first come, first served basis.

## Evening Undergraduate, Graduate, and Summer Programs

Tuition for undergraduate courses is currently $120 per semester hour of credit. Tuition for graduate courses is currently $150 per semester hour of credit. Tuition is payable at the time of registration and may be made by bank check, money order, personal check, or credit card (MasterCard, Visa or Discover); cash will not be accepted.

**Fees** are charged and payable when and as applicable:

| | |
|---|---|
| General Fee | $ 85 — per credit |
| Transcript | $ 2 — per copy |
| Rush Transcript | $ 4 — per copy |
| Laboratory Instruction | $ 60 — per course |
| Nursing Clinical | $320 — per course |
| Field Work Supervision/Internships/ Teacher Education Practicum | $ 15 — per credit hour |

Tuition and fee charges are subject to change by the Board of Trustees.

### Course Cancellation/Processing of Tuition Refunds

Worcester State College reserves the right to cancel any course for which there is insufficient enrollment. Students may transfer to another course by completing appropriate forms in the Registrar's Office. Processing of tuition refunds takes two to four weeks. Refunds are sent to the student at the address of record.

# Student Health Insurance

Undergraduate degree seeking students enrolled in nine (9) or more credits per semester, and graduate degree seeking students enrolled in seven (7) or more credits per semester are required by State regulation to carry individual health insurance coverage. Students without such coverage will be billed a health insurance premium (currently $1,229 per year) for mandatory enrollment. **Students who already have appropriate coverage must complete a waiver of insurance at the time of payment (before the first day of classes) in order to waive the mandatory insurance premium. Any student not completing a waiver will be billed for insurance. This charge may not be adjusted, and is non-refundable after the add/drop period.**

# General College Refund Policy

### Applicability

This refund policy applies to all full-time and part-time students enrolled in regularly scheduled classes at Worcester State College other than those attending Worcester State College for the first time (in the current academic year) and receiving financial aid. This policy applies to all tuition, room, board, fees, and other standard billed charges.

### Withdrawal Requirements

All matriculated students, undergraduate and graduate, who wish to withdraw from the College must do so in writing to the Registrar's Office on the prescribed form. The official date of withdrawal is that on which the completed form is received and stamped by the Registrar.

All withdrawals from courses — rather than withdrawal from the College entirely — must be done in writing to the Registrar's Office, following the procedures established for that purpose.

### Refund Policy

Refunds for withdrawal from the College or withdrawal from courses will be made based on the following schedule if official notice of withdrawal has been received in writing and certified by the Registrar:

1. Prior to the first day of classes, or within the official add/drop period
   - Full refund of all tuitions and fees paid
2. After the official add/drop period
   - No refund of any tuitions or fees paid (unless registration is cancelled by the College)
3. Room Charge (if applicable)
   - A full refund of room fees, less the $150 room reservation deposit will be made if intention to withdraw is received by the Director of Housing in writing at least 30 days prior to the beginning of the semester, **and the College is able to fill the vacancy thus created.**
   - A pro-rata refund of room fees will be made if intention to withdraw is received by the Director of Housing in writing prior to November 1st (Fall semester) or April 1st (Spring semester), **and the College is able to fill the vacancy thus created.**
   - The Housing Contract is for the term of one (1) full academic year, unless otherwise specified in writing. To terminate this agreement, for any reason other than terminating his/her status as a student of Worcester State College, a student must petition for release with the Director of Residence Life. Such release is not guaranteed, **and the College reserves the right to deny requests to terminate or cancel the agreement.**

# Return of Title IV Funds

Refund Policy for Students Who Receive Federal Financial Aid

**Applicability**
This refund policy applies only to all full-time and part-time students enrolled in regularly scheduled classes at Worcester State College who are receiving Federal Title IV financial aid.

This policy is mandated by federal regulation.

**Withdrawal Requirements**
All matriculated students, undergraduate and graduate, who wish to withdraw from the College must do so in writing to the Registrar's Office on the prescribed form. The official date of withdrawal for this refund policy is the date that the student begins the official withdrawal process or the date that the student officially notifies the College of his or her intent to withdraw.

**Refund Policy**
Refund of Federal Title IV Financial Aid will be based on the date a student completely withdraws from the College as described above. During the first 60% of the semester or summer term a student earns Title IV funds in direct proportion to the length of time he or she remained enrolled. A student who remains enrolled beyond the 60% point earns all aid for the semester or summer term.

The percentage of the semester or summer term that a student remains enrolled is derived by dividing the number of days a student remains in attendance by the number of days in a semester. Calendar days are used but breaks of at least five days are excluded from both the numerator and the denominator.

Unearned Federal Title IV aid other than Federal Work-Study must be repaid in the following order:

Federal Unsubsidized Stafford Loan
Federal Subsidized Stafford Loan
Federal Perkins Loan
Federal Parent Loan
Federal Pell Grant
Federal Supplemental Educational Opportunity Grant
Other Title IV programs

Students must repay 100% of unearned loans according to the terms of their Promissory Note. Only 50% of unearned grants must be repaid within 30 days of withdrawal from the College.

# Financial Aid

## General Information

All students are encouraged to apply for financial aid to help them meet their educational costs. To receive financial assistance from the College, students must be enrolled, or accepted for enrollment, in a degree-granting or federally approved certification program at Worcester State College. Second degree and graduate students are eligible for Federal Loans and/or Federal Work Study funds. Applicants must also meet all Federal eligibility requirements and must be in good academic standing.

Financial aid is awarded to students with demonstrated financial need, i.e., the amount by which the total cost of college attendance (including reasonable costs for room, board, books, transportation, and other personal expenses) exceeds the expected family contribution. Non-need based financial aid is available through several loan programs.

Complete information on financial aid programs, application procedures, and the award process is available in the Worcester State College Financial Aid Guide and the Financial Aid Office website at wwwfac.worcester.edu/finaid. Applicants to the College, current students, and their families should feel free to contact the Financial Aid Office at 508-929-8056 during our business hours, 8:15 a.m. to 5 p.m., Monday through Friday.

## Application Process

All students applying for financial aid should complete and submit a Free Application for Federal Student Aid (FAFSA) and a Worcester State College Financial Aid Application prior to the priority dates indicated below. Late applicants for financial assistance will be given full consideration for maximum funding as long as resources are available. Note that funding from the Federal Pell Grant and Federal Stafford Loan programs is available to all late applicants.

All applicants are encouraged to apply for any scholarship assistance awarded by the state in which they legally reside. State funds that are lost due to late application or lack of application will not be replaced with institutional scholarship funds.

**NOTE:** Renewal of financial aid is not automatic; eligibility must be re-established by applying on an annual basis.

**Priority Dates:**

| | | |
|---|---|---|
| March 1 | — | all first year and returning undergraduate and graduate applicants for the Fall of 2005 |
| November 1 | — | all first year applicants and transfers for the Spring of 2006 |
| April 1 | — | priority date for the submission of Summer I and Summer II financial assistance requests |

# Programs and Resources

Worcester State College has numerous financial aid programs available to assist students in meeting college costs. Funding for these programs comes from federal, state, institutional and private sources. Types of programs include grants, scholarships, waivers, loans, and employment.

# Federal Grants and Benefits:

### Federal Pell Grant

The Federal Pell Grant is available to undergraduate students enrolled in a degree program who do not already have a bachelor's degree. For the 2005/2006 academic year, Pell Grants ranged from $400 to $4050. All eligible students will receive the Federal Pell Grant amount to which they are entitled.

### Federal Supplemental Educational Opportunity Grant

The Federal Supplemental Educational Opportunity Grant (FSEOG) is a federal grant administered by the College. These Grants are limited to undergraduate students who do not already have a bachelor's degree. Priority is given to students with exceptional need. SEOG awards are awarded by the Financial Aid Office to eligible students.

### Veterans' Benefits

The Veterans Administration has approved Worcester State College for the purpose of providing Veteran's Educational Benefits to veterans pursuing undergraduate and graduate study. Massachusetts veterans entitled to educational benefits must provide the Registrar's Office with a copy of their Form DD-214. Upon receipt of this certificate and the veteran's application, the College will prepare a notice of enrollment and notify the Veterans Administration to determine eligibility for, and initiate payments to the student. Questions concerning veteran's benefits should be directed to the Office of the Registrar.

# Grants and Waivers for Massachusetts Residents

### MASSGrant Program

The MASSGrant is a grant assistance program funded by appropriations from the Massachusetts Legislature. The MASSGrant program provides need-based financial assistance to undergraduate students who reside in Massachusetts and who are matriculated in a full time program. For the 2005-2006 academic year, MASSGrant awards at Worcester State College ranged from $300 to $1200, depending on the student's Expected Family Contribution (EFC). To apply for the MASSGrant, complete and submit the Free Application for Federal Student Aid (FAFSA) to the Federal Central Processor. The Federal Processor must receive FAFSA by May 1st, in order for the student to meet the MASSGrant application priority deadline date.

### Massachusetts Tuition Waiver Program and the Massachusetts Cash Grant Program (State Access Grant)

The Tuition Waiver Program and the Cash Grant Program were created to assist needy students in meeting institutionally held charges such as state-supported tuition and mandatory fees. The Tuition Waiver Program was created to maintain access to the Commonwealth's public colleges and universities and to ensure that the benefits of higher education are available to all citizens. The Cash Grant is designed as an offset of the Tuition Waiver Program for the purpose of providing financial support to those individuals who would be denied the opportunity for higher education, without such assistance. Both programs are awarded by the Financial Aid Office to eligible students.

### Massachusetts Public Service Grant Program

The Massachusetts Public Service Grant Program was established in recognition of the hardship that a family experiences upon the loss of a parent and or spouse who is killed or missing in the line of public service duty in the Commonwealth of Massachusetts. This grant program was established to provide educational opportunity to the remaining family members. The Public Service Grant Program is the only scholarship program not based on demonstrated financial need, but rather entitlement. Students should contact the Office of Student Financial Assistance at 617-727-9420 or visit the website by at *www.osfa.mass.edu* for eligibility criteria and application instructions.

### Paraprofessional Teacher Preparation Grant Program

The Paraprofessional Teacher Preparation Grant Program was established by the Legislature for the purpose of providing financial assistance to Massachusetts residents who are currently employed as paraprofessionals in Massachusetts public schools, but wish to become certified as full time teachers. This grant is designed to help reduce financial barriers that often become obstacles for many paraprofessionals in attaining higher education. The program is also an attempt to help address the Commonwealth's current teacher shortage. Financial need is not a requirement for the Paraprofessional Teacher Preparation Grant. However, recipients must annually file the Free Application for Federal Student Aid (FAFSA). Students should contact the Office of Student Financial Assistance at 617-727-9420 or visit the web site at *www.osfa.mass.edu* for eligibility criteria and application instructions.

### Categorical Tuition Waivers

To be eligible for a Categorical Tuition Waiver, a student must be a permanent legal resident of Massachusetts for at least one year prior to the opening of the academic year, a United States citizen or eligible noncitizen, in compliance with applicable Selective Service Registration laws, not be in default of any federal or state loan or owe a refund on any previously received financial aid, and a member of an eligible category as defined below:

**Veteran:** As provided in M.G.L. Chapter 4, Section 7(43) including: Spanish War, World War I, World War II, Korean, Vietnam, Lebanese peace keeping force, Grenada rescue mission, the Panamanian intervention force, or the Persian Gulf.

For purposes of tuition waivers, the term "veteran" shall also include any individual who served in the army, navy, marine corps, coast guard or air force of the United States for not less than ninety days at least one of which was served in the theatre of operation for the Somalian mission known as "Operation Restore Hope" and whose last discharge or release was under honorable conditions.

**Native American:** As certified by the Bureau of Indian Affairs.

**Senior Citizen:** Persons over the age of 60.

**Armed Forces:** An active member of the Armed Forces (Army, Navy, Marine, Air Force or Coast Guard) stationed and residing in Massachusetts.

**Clients of the Massachusetts Rehabilitation Commission or Commission for the Blind:** As certified by the respective commission.

In accordance with institutional requirements, each student must present documentation of categorical waiver eligibility to the appropriate college officials, enroll in at least three undergraduate credits per semester in state supported undergraduate degree or certificate program, maintain satisfactory academic progress in accordance with federal and institutional standards, and not have earned a prior bachelors degree or its equivalent.

**Department of Social Services Tuition Waiver for Foster Care Children and the Department of Social Services Adopted Children Tuition Waiver:** The DSS Tuition Waiver for Foster Care Children is designed to provide financial support for higher education to foster children in state custody who were neither adopted nor returned home. The DSS Adopted Children Tuition Waiver is designed to lessen the financial burden on adopting parents in the Commonwealth. The Adopted Children Waiver extends eligibility to all children and young adults, age twenty-four or under, adopted through the Department of Social Services by state employees or eligible Massachusetts residents, regardless of the date of adoption. Students should contact the Office of Student Financial Assistance at 617-727-9420 or visit the web site at *www.osfa.mass.edu* for more eligibility criteria.

**Joint Admission Tuition Advantage Program Waiver:**

The Joint Admissions Tuition Advantage Program Waiver awards a tuition waiver equal to 33% of the resident tuition rate at Worcester State College or the two (2) years of a student's matriculation in college, immediately following their community college enrollment. Students should contact the Office of Student Financial Assistance at 617-727-9420 or visit the web site *www.osfa.mass.edu* for eligibility criteria.

# Student and Parent Loans

### Federal Stafford Loan/Unsubsidized Stafford Loans

The Federal Stafford Loan Program is a federally insured loan program designed to help a student pay expenses at institutions of post-secondary education. All Federal Stafford Loan applicants must demonstrate financial need in order to qualify for a subsidized loan. A Free Application for Federal Student Aid (FAFSA) must be completed before a Federal Subsidized and/or Unsubsidized Stafford Loan can be processed. The interest rate for Federal Stafford Loans that are first disbursed on or after July 1, 1994 is variable, but it will never exceed 8.25%. The interest rate is adjusted each year on July 1. The repayment period for Federal Stafford Loans begins six months after the student/borrower is graduated, ceases to be at least a half-time student or withdraws from school.

A student with no need or partial need may be eligible for an Unsubsidized Federal Stafford Loan. The Higher Education Amendments of 1992 created a new program of Unsubsidized Federal Stafford Loans for students who do not qualify, in whole or in part, for Subsidized Federal Stafford Loans. Your school and lender will inform you if your loan is Unsubsidized. The terms of your unsubsidized loan are the same as the terms for Subsidized Federal Stafford Loans, except as described below:

- **Interest Payments:** the federal government does not pay any interest on your behalf. Interest begins to accrue when each portion of your loan is disbursed. You may choose to pay the interest or allow it to accumulate. If you allow the interest to accumulate, it will be capitalized and the interest will be added to the principal amount of your loan and will increase the amount you have to repay. If you pay the interest as it accumulates, you will repay less in the long run.
- **Dependent/Independent undergraduates:** can receive up to: 1) Students who have completed 1-29 credit hours of study are eligible for $2,625, 2) Students who have completed 30-59 credit hours of study are eligible for $3,500, 3) Students who have completed 60 or more credit hours of study are eligible for $5,500.
- **Independent students:** and dependent students whose parents are unable to obtain a PLUS loan can borrow additional amounts from the Unsubsidized Federal Stafford Loan Program, in the amount of $4,000 for their first and second years of study and $5,000 for their third and fourth year.

- **Graduate students:** can borrow up to $8,500 from the Subsidized Federal Stafford Loan Program if they qualify for this need based loan and for up to $10,000 from the Unsubsidized program if their cost of education warrants these amounts.

Stafford Loan borrowers should contact their lender for specific information on repayment, deferment, cancellation and default provisions.

### Federal Perkins Loans

The Federal Perkins Loan Program is administered by the College and offers long term, low interest loans to undergraduate and graduate students. Federal Perkins Loans are awarded by the Financial Aid Office to eligible students.

No interest is charged during periods of at least half-time enrollment and during the grace period. The interest rate is 5% per year during repayment periods. Loan repayment begins nine or twelve months after the borrower leaves school or drops below half-time status (6 credits at Worcester State College). Minimum repayment is $120 per quarter. Loan repayment may not exceed 10 years.

### Massachusetts No Interest Loans (NIL)

The Massachusetts No Interest Loan (NIL) program was created to provide eligible, needy Massachusetts residents attending post-secondary educational institutions in Massachusetts with a state-funded loan. The NIL program offers zero interest loans to assist students in meeting educational costs. Repayment begins after a grace period and students have a period of ten (10 ) years to repay their NIL loans. Massachusetts No Interest Loans are awarded by the Financial Aid Office to eligible students.

### Federal Parent Loan to Undergraduate students (PLUS)

This loan enables parents of dependent undergraduates to borrow for their dependent's education. Repayment of this loan begins within 60 days of the date that the loan is fully disbursed. The interest rate is variable, adjusted annually, not to exceed 9%. As in the case of the Subsidized and Unsubsidized Federal Stafford Loan Programs there is a 3% insurance premium deducted from the disbursement of your parent loan. Federal Parent Loan applications can be obtained from your lender or from your school. Parents may borrow up to the cost of attendance annually, less any financial aid awarded to the student. PLUS borrowers should contact their lender for specific information on repayment, deferment, cancellation and default provisions.

### Alternative Loans

Alternative Loans are provided by financial institutions to assist students who need additional aid or are not eligible to receive the Federal Stafford Loan. Alternative Loans must be repaid, and the repayment terms, interest rate, and fees vary depending on the lender. Also, Alternative Loans are subject to a credit check and may require the student to have a co-signer. For more information on Alternative Loans and lenders, please visit our website or call our office to request a copy of the Alternative Loan Guide.

## Student Employment

### Federal College Work-Study Program

The Federal College Work-Study Program (FWSP) is a need-based program that provides federally subsidized employment opportunities on campus for enrolled students. A student's financial aid award letter indicates the FWSP award and maximum earnings limit, typically $1,500, depending on availability of funds and individual need. Students are paid only for hours actually worked. The FWSP wage rate is variable depending on placement. FWSP earnings are not applied directly to the student's tuition account without the student's written consent. These wages are paid directly to the student. Students employed under

the FWSP Program are not eligible for unemployment compensation benefits or worker's compensation for on-the-job accidents. FWSP earnings must be declared on federal and state income tax returns if filed. Students are encouraged to participate in employment that complements and reinforces their educational goals. Full-time students may not work more than 20 hours per week during the academic year.

### Other On-Campus Employment

Some departments on campus - including the Student Center, the bookstore, the campus food service contractor, the Learning Resources Center, and the Housing Office - offer part-time jobs to students. Contact the department(s) for information on possible openings and application procedures. Students are encouraged to see if they qualify for FWSP funding before applying for these jobs.

### Off-Campus Employment

Listings of off-campus employment opportunities are posted outside of the Financial Aid Office. You may also contact the Director of Career Services at the Student Center room SC337.

## Other Options

### Tuition Payment Plan

Worcester State College participates in a tuition payment plan offered through Academic Management Services, Inc (AMS). The plan offers the family a low-cost, flexible method of paying for educational expenses by prorating these costs over 10 months. This is not a loan program. For more information contact: AMS at (800) 635-0120.

### State Employees' Tuition Remission

State Employees and their dependents who elect to take courses at Worcester State College may have some or all of their tuition waived. Documentation of eligibility should be submitted to the Bursar's Office. Eligible persons should contact the Personnel Office at their place of employment for further details.

## Worcester State College Scholarships for Entering Students

### Presidential Scholarship

15 merit based scholarships awarded each year for full in-state day school tuition and fees. The student must have a recalculated GPA of 3.5 or above (using BHE methodology) and a combined SAT of 1150 (sub-score minimums of 500). The scholarship is renewable for up to four years to recipients who maintain a minimum cumulative GPA of 3.0. Participation in the Honors Program is a requirement. Presidential Scholars will be required to participate in a volunteer college service program (tutor, tour guide, peer advisor, etc) for a minimum of four semesters. Presidential Scholars will be the guest of the College President for a special reception and/or program (symphony concert, Ecotarium tour, Museum of Art tour, etc.). Furthermore, recipients will meet as a cohort with college advisors for social or team-building activities.

### Teacher Education Scholarship

15 merit based scholarships awarded each year to Education majors for full in-state day school tuition and fees. The student must have a recalculated GPA of 3.5 (using BHE methodology) and a combined SAT of 1150 (sub-scores of 500). The scholarship is renewable for up to four years provided recipients meet Education Department progression requirements. Teacher Preparation scholars will be encouraged (but not be required) to participate in the College Honors Program.

### Tsongas Scholarship

5 merit based scholarships awarded each year to Massachusetts residents for full in-state day school tuition and fees. They must have a recalculated GPA of a 3.75 (using BHE methodology) and a combined SAT of 1200. The scholarship is renewable for up to four years to recipients who maintain a minimum cumulative GPA of 3.3. Tsongas Scholars will be encouraged (but not required) to participate in the College Honors Program. Tsongas Scholars will be invited to participate in all Presidential Scholarship activities.

### Honors Scholarship

25 merit based scholarships awarded each year for $1,500 each. The student must have a recalculated GPA of 3.2 or above (using BHE methodology) and a combined SAT of 1100 (sub-score minimums of 500). The scholarship is renewable for up to four years to recipients who maintain a minimum cumulative GPA of 3.0. Participation in the Honors Program is a requirement.

### Access Scholarship

15 scholarships awarded each year to Massachusetts residents of under-represented populations including African American, Latino/a, Asian, and Native American applicants and first-generation, low-income applicants for $1000 each. The student must have a recalculated GPA of 2.5 (using BHE methodology) and a combined SAT of 900 with sub-score minimums of 450. The scholarship is renewable for up to four contiguous years provided recipients maintain a specific minimum cumulative GPA requirement.

### Transfer Scholarship

25 scholarships awarded each year to Massachusetts residents for $1,000 each. The student must have completed an associate's degree at a public or private two-year college with a 3.2 cumulative grade point average. The scholarship is renewable for up to two (three for MOT majors) years to recipients who maintain a minimum cumulative GPA of 2.8.

### Adult Learner Scholarship

20 scholarships awarded each year to a Massachusetts resident with demonstrated need for $500.00 to full-time day or evening students who are making application at least five years out of high school. SAT scores, high school grades, college transcripts, GED scores, work experience, and essay are all factors for consideration, though candidates may not have taken the SAT; also, two letters of recommendation are required. The scholarship is renewable for two contiguous years of study with a minimum college cumulative GPA of 2.5.

## Worcester State College Academic Scholarships for Returning Students

Academic scholarships are available at Worcester State College to full-time undergraduate students who demonstrate high academic achievement and meet the eligibility criteria. Financial need is a consideration for some, but not all, of these scholarships. Application materials and a current listing of scholarships are available at the Financial Aid Office.

### THE ACHIEVEMENT AND COMMUNITY SCHOLARSHIP

(Amount Equal to One Full Annual Tuition Award) Awarded for academic achievement and community involvement, as evidenced by unpaid service in either the College community or the broader civic community. Service in student government organizations, clubs, civic groups, community volunteer work, etc. must be documented and submitted with the scholarship application.

### THE SHIRLEY ALBERT ENDOWED SCHOLARSHIP

(Four Awards Equal to Full Annual Tuition) The Shirley Albert Memorial Scholarship will be awarded to one or more deserving incoming or current students who have been actively

involved in music or drama programs in their pre-college or college years. Preference shall be given to incoming students. Worcester State College may award multiple scholarships each year, to the extent that eligible recipients can be identified, providing an amount equal to full in-state tuition. In certain situations, an amount greater than in-state tuition may be awarded to out-of-state students.

**THE ALUMNI SCHOLARSHIP**

(Four Awards Equal to Full Annual Tuition) This scholarship, established and supported by thousands of Worcester State College Alumni, will be awarded to a total of four new or current students who is the son or daughter of a Worcester State College Graduate.

**VERA DOWDEN BALDWIN SCHOLARSHIP**

($500 award) The Vera Dowden Baldwin Scholarship will be awarded to a student, with financial need, residing in Dowden Hall. Candidates should provide a short essay attesting to the need for this grant and submit it with the scholarship application. It should be noted that this scholarship will not be automatically renewed and applicants are encouraged to reapply each academic year as long as they maintain residency within Dowden Hall.

**THE BEDARD FAMILY SCHOLARSHIP**

($1,250 Award) The Bedard Family Scholarship will be awarded to a student entering his or her sophomore year of study in the Business Administration department. Candidates are those full time students who have demonstrated a high degree of ambition, motivation and a "can-do" attitude toward success. Candidates must work full or part time while attending WSC. An essay should accompany the application, indicating the students desire to explore the possibilities of business ownership and documenting what the student has done to pursue this goal. This scholarship is renewable based on performance. International students with a sincere interest in business should consider applying for this scholarship.

**THE PROMILA BHAN SCHOLARSHIP**

($1,000 per year) First preference given to an enrolled student of Indian descent. Second preference to a student who shows interest in and awareness of the cultural and historical impact of the people of the Indian subcontinent. Student must be in good academic standing and hold at least a 3.0 GPA, and demonstrate financial need.

**THE BILINGUAL SCHOLARSHIP**

(Amount Equal to One Full Annual Tuition Award) Awarded to a full-time student who is outstanding in a language other than his/her native language, shows financial need and has a minimum GPA of 3.3 or its equivalent.

**THE JILL ANN BILODEAU MEMORIAL NURSING SCHOLARSHIP**

(Amount Equal to Full Annual Tuition) The Jill Ann Bilodeau Memorial Nursing Scholarship will be awarded to an undergraduate student who is entering his or her junior or senior year of study within the Nursing department. The applicant must be in good academic standing. An essay should accompany the scholarship application and this essay should express the applicant's reason for choosing the nursing profession. Preference will be given to students who have returned to college to continue their educational pursuits.

**THE OLIVE I. (LUTZ) BORGATTI ENDOWED SCHOLARSHIP**

(Twelve Awards Equal to Full Annual Tuition) Eligibility Criteria: I. Applications will be reviewed by the Scholarship Committee, and the scholarships awarded, in accordance with the following priorities: A. Priority I. Applicant must be: (1) a current full-time (40 hours per week) or part-time employee (20 hours per week) or a relative of a current full-time employee or retiree of Spag's Supply, Inc. and, (2) a full-time student enrolled in, and holding good academic standing in a program at Worcester State College or (3) a full-time employee enrolled in a degree program at Worcester State College, holding good academic standing, but only attending school part-time B. Priority II - Applicant must be: (1)

any full-time student enrolled in a program at Worcester State College holding a minimum cumulative grade-point average of 3.0 II. Applicants must show evidence of financial need via the Worcester State College financial aid process. III. All enrolled students, including freshmen, are eligible to apply. Entering freshmen can be awarded the scholarship if it is determined that the individual's high school academic performance merits the award (since the entering freshman applicant will most likely not yet have established a college grade-point average). IV. Though the award is not automatically renewable, an awardee may receive this annual scholarship more than once. A separate application would have to be filed each time.

**THE JOSE BUNUAN MEMORIAL SCHOLARSHIP**

($500 Award) The Jose Bunuan Memorial Scholarship is awarded to a junior enrolled in the Early Childhood Education program. The applicant must have a strong interest in educating children and must show evidence of financial need. Students applying for this scholarship should have a minimum cumulative grade-point average of 3.0. Candidates should provide a short essay attesting to the need for this scholarship and submit it with the scholarship application.

**THE BLANCHE MARCUS CARNAM MEMORIAL SCHOLARSHIP**

($500 Award) Awarded to a female student majoring in Mathematics or Computer Science with a strong career interest anda minimum grade point average of 3.0.

**SIDNEY BUXTON JR. SCHOLARSHIP AWARD**

(Several Partial Tuition Awards)The Sidney Buxton, Jr. Scholarship Award will be awarded to a student who meets the following criteria: • A full-time student at Worcester State College in the academic year prior to this application. • A participant of the Alternative for Individual Development (AID) program. • A sophomore or junior, with a minimum grade point average (GPA) of 2.50, who has completed a minimum of 24 credits within the last academic year. • Established participation with a community service event/agency.

**THE PAUL J. CARNAZZA SCHOLARSHIP**

(Amount Equal to One Full Annual Tuition Award) The Paul J. Carnazza Scholarship is awarded to a new or current full-time student who shows superior scholarship and financial need combined with a strong career interest, with a minimum cumulative average of 2.8 and evidence of potential for future accomplishment.

**THE LUCY CHAND NURSING SCHOLARSHIP**

(Amount Equal to One Full Annual Tuition Award) The Lucy Chand Nursing Scholarship was established by her son, Ronald H. Chand and is awarded in accordance with the following priorities: A full or part-time student who is: a) An employee, former employee or relative of an employee at Chand Associates or any of it's subsidiaries and who is involved in the Nursing Program at Worcester State College; b) An employee, former employee or relative of an employee at Chand Associates or any of it's subsidiaries who is a student with a 3.0 GPA or higher in any major; or c) Any student holding good academic standing in the Nursing Program at Worcester State College. Though the award is not automatically renewable, an awardee may receive this annual scholarship more than once. A separate application would need to be filed each time.

**THE FATHER ROLAND CHENIER MEMORIAL SCHOLARSHIP**

(Amount Equal to One Full Annual Tuition Award) The Father Roland Chenier Memorial Scholarship will be awarded to a student who is entering his or her junior or senior year of undergraduate study. Applicants are asked to submit an essay that highlights his or her work and contributions to a religious group. Students may include a letter of recommendation from a member of the clergy within whom he/she has worked. Preference will be given to a student currently involved in a religious group that is presently affiliated with Worcester State College.

**CLASS OF 1958 ENDOWED SCHOLARSHIP**

(Amount Equal to One Full Annual Tuition Award) The intent of the Class of 1958 Scholarship is to extend a "helping hand" through financial assistance to the recipient. The recipient may be an incoming freshman or a present student working his or her way through Worcester State College. Preference will be given, but not limited to, a relative of a Worcester State College graduate from the Class of 1958. The applicant must have a GPA of 2.75 or better and must include an essay expressing why he or she should be the recipient of this scholarship.

**CLASS OF 2003 STUDENT LEADER SCHOLARSHIP**

($500 per year) The Class of 2003 Student Leader Scholarship will be awarded to an undergraduate student who is ardently involved with campus activities. The applicant should provide a brief essay describing his or her involvement as a leader on the Worcester State College campus. Preference will be given, but not limited to, a student in his/her junior or senior level of study.

**THE COM/GAS COMPANY SCHOLARSHIP**

(Amount Equal to One Full Annual Tuition Award) In order to be eligible an applicant must be a current full time matriculated student at Worcester State College, a relative (spouse or lineal descendent) of an employee OR current customer of COM/Gas, and have a cumulative GPA of 2.7 or above.

**THE JOHN F. COUGHLIN MEMORIAL SCHOLARSHIP**

($500 per year) Awarded to a new or current student who demonstrates superior scholarship combined with a strong career interest and financial need.

**THE MARGARET M. CURRAN ENDOWED SCHOLARSHIP**

(Amount Equal to One Full Annual Tuition Award) The Margaret M. Curran Endowed Scholarship will be awarded to a full-time Elementary Education female student entering her junior or senior year who has maintained an overall G.P.A. of 3.3 or higher. A student applying for this scholarship must include an essay with her application indicating her commitment to the teaching profession.

**DAVIS ADVERTISING SCHOLARSHIP IN HONOR OF MARION AND LEONARD DAVIS**

(Amount Equal to One Full Annual Tuition Award) The Davis Advertising Scholarship in Honor of Marion and Leonard Davis will be awarded to a student majoring in Communications who exemplifies the qualities of hard work and determination. It should be noted that this scholarship will not be automatically renewed and applicants are encouraged to reapply each academic year.

**THE PAUL '57, '59 AND BARBARA '71 DAVIS SCHOLARSHIP**

($500 award) The Paul '57, '59 and Barbara '71 Davis Scholarship will be awarded to a full time undergraduate student, residing in Worcester County, with need. Candidates should provide a short essay attesting to the need for this scholarship and submit it with the scholarship application. It should be noted that preference for this award will be given to students of Armenian descent and that the award will not be automatically renewed.

**GENE AND MARY DEFEUDIS ENDOWED SCHOLARSHIP**

(Three Awards Equal to Full Annual Tuition) The Gene and Mary DeFeudis Endowed Scholarship will be awarded to incoming or full-time students with a minimum grade point average of 3.0. The applicant should provide evidence of financial need. Furthermore, candidates should provide a short essay attesting to the need for this scholarship and submit it with the scholarship application. *Preference will be given to students entering their freshman year of study.

**THE ELDER ADVOCATES SCHOLARSHIP**

(Partial Tuition – fall only) The Elder Advocates Scholarship will be awarded to a worthy junior or senior applicant who demonstrates outstanding performance within his/her chosen discipline and who has demonstrated an interest in meeting the challenges of our aging society.

**THE CAROLYN AND EUGENE FARRAHER MEMORIAL SCHOLARSHIP**

($200 per year) Awarded to a junior or senior majoring in Health or Human Services with a minimum GPA of 3.0. The student should have a deep understanding of the importance of family and have demonstrated a commitment to community involvement.

**FLAGSHIP BANK & TRUST COMPANY SCHOLARSHIP FUND**

(Amount Equal to One Full Annual Tuition Award) The Flagship Bank & Trust Scholarship will be awarded in accordance with the following priorities: A full or part-time student with financial need who is: a) a Flagship Bank employee or child of a Flagship Bank employee; b) in the event of no eligible candidates from Flagship Bank, the scholarship is available to any Chittenden Corporation employee or child of any Chittenden Corporation employee; c) in the event of no eligible candidates from Flagship Bank or the Chittenden Corporation, the scholarship is available to any resident of Worcester. Candidates should provide a short essay attesting to the need for this scholarship and submit it with the scholarship application. It should be noted that this scholarship will not be automatically renewed and applicants are encouraged to reapply each academic year.

**THE ESTHER FORBES SCHOLARSHIP**

($250 per year) First preference to a declared English Major who has a strong interest in becoming an author. Second preference to a student with junior or senior standing in the English Department. Must have a GPA of 3.0 or higher and demonstrate financial need.

**THE DR. ELIZABETH V. FOSTER MEMORIAL SCHOLARSHIP**

(Amount Equal to One Full Annual Tuition Award) The Dr. Elizabeth V. Foster Endowed Scholarship will be awarded to an undergraduate student who is entering his or her junior or senior year of study. The applicant must have a grade point average of 3.5 or higher. An essay should accompany the scholarship application and this essay should express the applicants desire to serve as a teacher and provide evidence of high professional standards and potential. The student may also provide a recommendation from a member of Worcester State College faculty.

**THE GEORGE F. AND SYBIL H. FULLER FOUNDATION SCHOLARSHIP**

(Ten $1,000 Awards) The George F. and Sybil H. Fuller Foundation Scholarship will be awarded to students with financial need. First preference will be given to students who have participated in programs offered by the Latino Education Institute at Worcester State College. Second preference will be given to Latino/a students. Candidates should provide a short essay attesting to the need for this scholarship and submit it with the scholarship application. It should be noted that this scholarship will not be automatically renewed and applicants are encouraged to reapply each academic year.

**DRS. KALYAN K. AND ABHA P GHOSH ENDOWED SCHOLARSHIP**

(Amount Equal to One Full Annual Tuition Award) The Kalyan K. and Abha P. Ghosh Scholarship will be awarded to an incoming or current student attending Worcester State College. Incoming students must have a grade point average of 3.5 or higher while current matriculating students should carry a minimum of a 3.0 grade point average. The applicant must major in any Life or Physical Science or Computer Science/Mathematics Program and show evidence of financial need by demonstrating a maximum family income of $35,000 or less if the applicant is a dependent student.

**THE KAHLIL GIBRAN SCHOLARSHIP**

($250 per year) First preference to an enrolled student of Middle Eastern descent. Second preference to a student majoring in or showing an awareness of the politics and/or history of the Middle East. Student must have a GPA of 3.0 or better and junior standing or above.

**THE CHARLES AND ESTHER GOLUB SCHOLARSHIP**

(Amount Equal to One Full Annual Tuition Award) The Charles and Esther Golub Endowed Scholarship will be awarded to one full-time male student majoring in Business Administration or Economics who has demonstrated a high degree of motivation and responsibility while attending Worcester State College.

**THE DR. LILLIAN R. GOODMAN AND MARY K. ALEXANDER NURSING SCHOLARSHIP**

($250 per year) Awarded to a senior nursing major with a GPA of 3.3 or higher with demonstrated financial need.

**THE DR. RUTH GRIFFITHS ENDOWED SCHOLARSHIP**

(Amount Equal to One Full Annual Tuition Award) The Dr. Ruth Griffiths Endowed Scholarship will be awarded to either an undergraduate or graduate student majoring in Elementary Education. The applicant should have a grade point average of 3.0 or higher and his/her essay should show evidence of a commitment to the advancement of children and the teaching profession. If the applicant sees any other connections between the brief write up of Dr. Griffiths and him/her self it would be thoughtful to include them in the essay.

**THE DR. ROSE D. HAROIAN ENDOWED SCHOLARSHIP**

(Amount Equal to Full In-State Tuition) The Dr. Rose D. Haroian Endowed Scholarship will be awarded to a junior with a minimum GPA of 3.0 and a record of service to the college and/or community. The student must demonstrate a desire to continue his or her education in the field of speech/language and hearing.

**THE FLORENCE VIVIAN "TIPPIE" HOLMES SCHOLARSHIP**

(Amount Equal to One Full Annual Tuition Award) The Florence Vivian Holmes Scholarship will be awarded to a student who is majoring in elementary education and who is committed to teaching in the Worcester Public Schools in grades K – 6. This scholarship is granted to a junior-year student and shall be applied equally to the junior and senior years of his or her education. The recipient will have a minimum grade point average of 3.0. Preference will be given to a female applicant.

**HONORS PROGRAM SCHOLARSHIP**

(Ten Awards of $1,000 Available) Students interested in applying for the Honors Program Scholarship are required to write a letter that describes why they are interested in the challenge of honors course work as well as their current coursework, academic interests and goals. Furthermore, students should attach their official transcript. Complete applications will be reviewed by the Honors Advisory Council and awards will be made on the basis of academic merit rather than financial need.

**THE INDIA SOCIETY SCHOLARSHIP**

($250 per year) First preference to an enrolled student of Indian descent. Second preference to a student with an understanding of the culture of the people of India. Student must have a 3.0 GPA or higher and have at least a junior standing.

**THE JOHN AND LORETTA (WHITE JENSEN ENDOWED SCHOLARSHIP**

(Amount Equal to One Annual Full Tuition Award) The John and Loretta (White) Jensen Endowed Scholarship will be awarded to a new or currently enrolled full-time Worcester State College student based on academic excellence. The applicant must have a grade point average of 3.0 or higher and major in Education. Preference will be given to a son,

daughter or relative of a Delta Kappa Gamma, Delta Chapter member. The selected student will be given strong preference in following years (including graduate studies) to receive the annual scholarship providing their academic progress is satisfactory to Delta Kappa Gamma.

**THE DR. FRANCIS L. JONES MEMORIAL SCHOLARSHIP**

(Four Awards Equal to Full Annual Tuition) Awarded to an undergraduate student with a grade point average of 3.5 or better on the basis of need.

**THE ROBIN L. KAPLAN '90 — TJX COMPANIES MEMORIAL SCHOLARSHIP**

(Twelve $1,000 Awards) The Robin L. Kaplan '90 —TJX Companies Memorial Scholarship will be awarded to economically disadvantaged students of diverse cultural and ethnic backgrounds who demonstrate both need and academic merit. Applicants must be enrolled full-time.

**THE AILEEN D. KELLY MEMORIAL SCHOLARSHIP**

(Three Awards Equal to Full Annual Tuition) The Aileen D. Kelly Memorial Scholarship will be awarded to an undergraduate or graduate student, a registered nurse, with a record of superior scholarship combined with a strong career interest and evidence of potential future accomplishment.

**THE CHARLOTTE & BEN KLEIN ENDOWED SCHOLARSHIP FOR THE PERFORMING ARTS**

(Amount Equal to One Full Annual Tuition Award) Applications for the Charlotte and Ben Klein Endowed Scholarship for the Performing Arts will be reviewed by the Scholarship committee, and the scholarship awarded, in accordance with the following priorities: First preference will be given to a candidate who has pursued dance at an advanced level. The applicant should indicate where he or she received practical training in dance. If there are no applicants that meet this standard then: Second preference will be given to a candidate who has pursued any other performing art, such as theatre, music, etc. Consideration will be given to those applicants who show financial need, but this is not a requirement for the scholarship. An essay should accompany the application for this scholarship and it should indicate the student's long-term commitment to performing arts.

* It is important to note that students who are fortunate enough to receive this scholarship will also be considered for a Charlotte Klein Dance Center Scholarship.

**THE EDITH C. AND PHILIP A. KLINGLOF SCHOLARSHIP**

(Up to Ten Annual $1,000 Awards) The Edith C. and Philip A. Klinglof Scholarship will be awarded to students majoring in Education. Applicants must be enrolled full-time.

**THE ALLEN AND BARBARA (LYONS) '59 LEVESQUE ENDOWED BOOK FUND**

(Two Annual $250 Voucher Awards) The Allen and Barbara (Lyons) '59 Levesque Endowed Book Fund will be awarded to two full-time students who are entering their sophomore, junior, or senior year of study. The applicant should provide evidence of financial need. It should be noted that preference will be given to students majoring in the field of Education.

**THE MASSACHUSETTS ELECTRIC COMPANY ENDOWED SCHOLARSHIP**

(Four Awards Equal to Full Annual Tuition) Awarded to a full time student at WSC. Applicant must provide evidence of financial need, live in a city or town that is serviced by Massachusetts Electric, and intend to take two or more courses in math or science.

**THE FELIX E. MASTERSON MEMORIAL SCHOLARSHIP**

(Two Awards Equal to Full Annual Tuition) The Dr. Felix E. Masterson Endowed Scholarship will be awarded to two undergraduate students enrolled in either the Education or Business Administration and Economics programs at Worcester State College. The applicants must

have a grade point average of 3.0 or higher. Preference will be given to students actively participating in college-sponsored extra-curricular activities.

**THE JULIA CRONIN MATTHEWS ENDOWED SCHOLARSHIP**

(Partial Tuition) The Julia Cronin Matthews Endowed Scholarship will be awarded to a female student entering her sophomore year who is majoring in history. The student applying for this award should have an interest in International Relations and the United Nations and provide evidence of this in essay form. Furthermore, to be considered for this award the applicant should be employed full-or part-time while attending Worcester State College.

**THE DOROTHY F. MCLOUGHLIN ENDOWED SCHOLARSHIP**

(Amount Equal to One Full Annual Tuition Award) The Dorothy F. McLoughlin Endowed Scholarship will be awarded to a female student majoring in Elementary Education who demonstrates a need for financial assistance. A student applying for this scholarship must include an essay with her application indicating her commitment to the teaching profession.

**THE FRANCES M. MOSCHELLA ELEMENTARY EDUCATION MEMORIAL SCHOLARSHIP**

(Amount Equal to Full Annual Tuition) The Frances M. Moschella Scholarship will be awarded to a sophomore or junior enrolled in the Elementary Education Program. The applicant must have a strong interest in educating children and must show evidence of financial need. Preferably, students applying for this scholarship should have a minimum cumulative grade-point average of 3.0. The student applying for this scholarship should provide an essay explaining why educating children is important to him/her.

**THE ROBERT & BARBARA (HICKEY) O'BRIEN SCHOLARSHIPS:**

The Robert & Barbara (Hickey) O'Brien scholarships will primarily be awarded to students who have demonstrated a high degree of industry, maturity, motivation and responsibility while attending Worcester State College. Students who apply must be employed either full or part-time and should reference their employment in their essay.

**THE JAMES M. HICKEY MEMORIAL SCHOLARSHIP**

(Amount Equal to One Full Annual Tuition Award) The James M. Hickey Memorial Scholarship is awarded by the donor to a full-time senior.

**THE ROBERT IVOR O'BRIEN MEMORIAL SCHOLARSHIP**

(Amount Equal to One Full Annual Tuition Award) The Robert Ivor O'Brien Memorial Scholarship is awarded by the donor to a fulltime junior.

**THE ARLINE LANOIS O'BRIEN/KNIGHT MEMORIAL SCHOLARSHIP**

(Amount Equal to One Full Annual Tuition Award) The Arline Lanois O'Brien/Knight Memorial Scholarship is awarded by the donor to a full-time sophomore.

**THE JULIA MOYNIHAN HICKEY MEMORIAL SCHOLARSHIP**

(Amount Equal to One Full Annual Tuition Award) The Julia Moynihan Hickey Memorial Scholarship is awarded by the donor to a full-time freshman.

**BARBARA (HICKEY) '57 O'BRIEN SCHOLARSHIP FUND**

(Amount Equal to One Full Annual Tuition Award) The Barbara (Hickey) '57 O'Brien Scholarship will be awarded to a student majoring in Education who exemplifies the qualities of hard work and determination. Applicants must submit the following: Evidence that they maintain a full or part-time job while pursuing a college degree; A letter of recommendation and a personal essay attesting to their high level of maturity, perseverance and industriousness. It should be noted that this scholarship will not be automatically renewed and applicants are encouraged to reapply each academic year.

**THE ADA CHEEVER PERRY MEMORIAL SCHOLARSHIP**

(Partial Tuition - $250 per semester) Applicants for this scholarship must be full-time undergraduate students at Worcester State College, entering their junior or senior year and pursing a major in Chemistry, Computer Science, Nursing or Management. Students with a minor in Secondary Education will also be considered. Applicants must have a minimum GPA of 2.7, must demonstrate financial need and must be citizens of the United States.

**THE DR. A. BARBARA PILON ENDOWED SCHOLARSHIP**

(Amount Equal to One Annual Full Tuition Award) The Dr. A. Barbara Pilon Endowed Scholarship will be awarded to a student who is entering his or her sophomore year- in the Languages and Literature Department and is majoring in English. The applicant must have a grade point average of 3.0 or higher and have expressed an interest in becoming an English teacher. An essay should accompany the scholarship application addressed to the chairperson of the Languages and Literature Department stating his/her goals.

**THE ICIK AND ROSE PLEVINSKY MEMORIAL SCHOLARSHIP**

(Amount Equal to One Annual Full Tuition Awards) The Icik and Rose Plevinsky Memorial Scholarship is the first endowed scholarship for business students at Worcester State College. This scholarship is awarded to a female full-time Business Administration student with a minimum GPA of 3.0 with demonstrated financial need.

**THE MARY M. REARDON ENDOWED SCHOLARSHIP**

(Amount Equal to One Full Annual Tuition Award) The Mary M. Reardon Scholarship will be awarded to a student who majors in Early Childhood Education. Preference will be given to, but not limited to, students with some disability or who intend on working with children with some disability.

**THE ALLEN AND RUTH R. (SADICK) RUBIN '52 ENDOWED SCHOLARSHIP TO HONOR THEIR PARENTS**

(Amount Equal to Full Annual Tuition) The Allen and Ruth R. (Sadick) Rubin '52 Scholarship will be awarded to an undergraduate student in the Education Department who is majoring in Elementary Education. The applicant must have a grade point average of 3.0 or higher. An essay should accompany the scholarship application and this essay should express the applicant's scholarly achievement and desire to serve as a teacher. Consideration will be given to those candidates who show financial need.

**THE HELEN G. SHAUGHNESSY ENDOWED SCHOLARSHIP**

(Amount Equal to One Full Annual Tuition Award) The Helen G. Shaughnessy Endowed Scholarship will be awarded to a student who is entering his or her senior year in the Elementary Education program. The applicant must have a grade point average of 3.5 or higher in their major and should provide evidence of financial need. The student applying for this scholarship should include an essay with the application. This essay should indicate the student's commitment to the teaching profession and experience in volunteering as a student.

**THE MARY CATHERINE SMALLEY MEMORIAL SCHOLARSHIP**

($500 Award) The Mary C. Smalley Memorial Scholarship Fund was established to assist disabled nursing students who embody the values that Mary embraced to achieve her goal of becoming a nurse. It is hoped that by providing this assistance a worthy student will go on to make contributions that will improve the delivery of healthcare. Further, that the recipient's personal hardships will be a source of strength and inspiration for themselves, their colleagues, and those they nurse. Applicants must be enrolled in the Nursing Program at Worcester State College and have at least a 3.0 GPA. Preference will be given to candidates who are disabled. THE HELEN M. SMITH SCHOLARSHIP ($100 per year) Students from the City of Worcester are given first preference for the Helen M.

Smith Scholarship. The applicant should show evidence of scholarly achievement and personal integrity. The student applying for this award must have a GPA of 3.0 or higher and demonstrate financial need.

**THE HELEN M. SMITH SCHOLARSHIP**

($100 per year) Students from the City of Worcester are given first preference for the Helen M. Smith Scholarship. The applicant should show evidence of scholarly achievement and personal integrity. The student applying for this award must have a GPA of 3.0 or higher and demonstrate financial need.

**THE MARY W. SMITH SCHOLARSHIP**

($500 Award) Awarded to a new or current student who shows financial need.

**THE DR. EUGENE A. SULLIVAN SCHOLARSHIP**

(Amount Equal to One Full Annual Tuition Award) Awarded to a new or current student whose major is Education. Preference given to, but not limited to, the son or daughter of a Worcester State College graduate.

**TEXTBOOK FUND**

(Several $100 vouchers for use in the college bookstore) These awards are given to full time students who demonstrate financial need. To be considered for these awards, students should submit an essay, following the guidelines on the form included in the Scholarship Listing Catalog.

**THE CHESTER S. WARNER SCHOLARSHIP**

(Amount Equal to One Annual Full Tuition Award) Awarded to a new or current student whose major is Education.

**THE ALUMNI ASSOCIATION OF THE WORCESTER CITY HOSPITAL SCHOOL OF NURSING ANNIE VIGEANT SCHOLARSHIP**

(Two $1,000 Awards Per Year) The Alumni Association of the Worcester City Hospital School of Nursing Annie Vigeant Scholarship will be awarded according to the following priorities:

A full or part-time nursing student who is:

(a) A graduate of Worcester City Hospital School of Nursing;

(b) A son, daughter, grandson, granddaughter, niece or nephew of a graduate of Worcester City Hospital School of Nursing;

(c) A resident of Worcester or Worcester County;

(d) Any student holding good academic standing in the Nursing Program.

Candidates should provide a short essay indicating their qualifications for this scholarship and submit it with the scholarship application. This scholarship will not be automatically renewed and applicants are encouraged to reapply each academic year.

**Two $1,000 awards will be granted but it should be noted that it is possible that this scholarship be awarded to one student in the amount of $2,000 if only one student meets the above criteria.*

# FALL 2005 ACADEMIC CALENDAR

**September**

| | |
|---|---|
| 6 | Pre-College Conference |
| **7** | **Classes begin: day, evening, graduate** |
| 13 | Last day to add day courses (state-supported) |
| 20 | Last day to drop day courses (state-supported) |
| 20 | Last day to add/drop evening/graduate courses (non state-supported) |

**October**

| | |
|---|---|
| **10** | **Columbus Day: NO CLASSES** |
| 12 | Last day to declare/change major/minor |
| 19 | Last day to make up *Incomplete* grades from Spring/Summer 2005 |
| 21 | Failure warnings due in the Registrar's Office |
| 28 | Failure Warnings issued to students |

**November**

| | |
|---|---|
| 4 | Last day to withdraw from courses/school |
| **11** | **Veteran's Day: NO CLASSES** |
| 16 | Last day to elect Pass/Fail option |
| 7-22 | Pre-registration for Spring 2006 |
| **23-26** | **Thanksgiving Recess** |
| 28 | Classes Resume |

**December**

| | |
|---|---|
| **14** | **All classes end** |
| 15-22 | Final Exams—day classes |
| 23 | Make-up day for exams postponed due to inclement weather |
| **31** | **Semester ends** |

**EXAMINATION SCHEDULE: FALL 2005**

| CLASS DAY AND TIME | | EXAMINATION DAY/DATE/TIME | | |
|---|---|---|---|---|
| MWF | 8:30AM | Friday | December 16 | 8:30AM |
| MWF | 9:30AM | Monday | December 19 | 8:30AM |
| MWF | 10:30AM | Wednesday | December 21 | 8:30AM |
| MWF | 11:30AM | Friday | December 16 | 12:30PM |
| MWF | 12:30PM | Monday | December 19 | 12:30PM |
| MWF | 1:30PM | Thursday | December 22 | 8:30AM |
| MW | 3:00PM | Wednesday | December 21 | 12:30PM |
| F | 1:30PM | Thursday | December 22 | 12:30PM |
| TR | 8:30AM | Thursday | December 15 | 8:30AM |
| TR | 10:00AM | Tuesday | December 20 | 8:30AM |
| TR | 11:30AM | Thursday | December 15 | 12:30PM |
| TR | 1:00PM | Tuesday | December 20 | 12:30PM |

# SPRING 2006 ACADEMIC CALENDAR

**January**

| | |
|---|---|
| **16** | **Martin Luther King Day: NO CLASSES** |
| **17** | **Classes begin: day, evening, graduate** |
| 23 | Last day to add day courses (state-supported) |
| 31 | Last day to drop day courses (state-supported) |
| 31 | Last day to add/drop evening, graduate courses (non state-supported) |

**February**

| | |
|---|---|
| **20** | **President's Day: NO CLASSES** |
| 28 | Last day to make up *Incompletes* from Fall 2005 |

**March**

| | |
|---|---|
| 10 | Last day to declare or change major or minor |
| 15 | Failure warnings due in the registrar's office |
| 22 | Failure warnings issued to students |
| **20-24** | **Spring Break** |
| 28 | Last day to withdraw from courses/school |

**April**

| | |
|---|---|
| 5 | Last day to elect Pass/Fail status |
| 10-24 | Pre-registration for Fall 2006 |
| **17** | **Patriot's Day: NO CLASSES** |
| 24-28 | Student evaluation of faculty |

**May**

| | |
|---|---|
| **3** | **All classes end** |
| 4 | Reading Day |
| 5-12 | Final Exams — day classes |
| **14** | **Commencement and end of semester** |

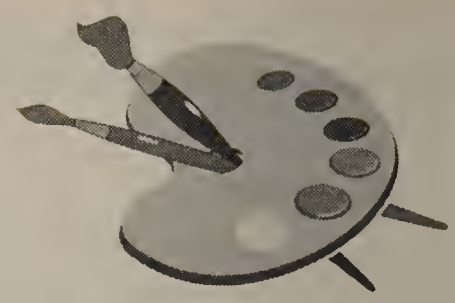
**EXAMINATION SCHEDULE: SPRING 2006**

| CLASS DAY AND TIME | | EXAMINATION DAY/DATE/TIME | | |
|---|---|---|---|---|
| MWF | 8:30AM | Friday | May 5 | 8:30AM |
| MWF | 9:30AM | Monday | May 8 | 8:30AM |
| MWF | 10:30AM | Wednesday | May 10 | 8:30AM |
| MWF | 11:30AM | Friday | May 5 | 12:30PM |
| MWF | 12:30PM | Monday | May 8 | 12:30PM |
| MWF` | 1:30PM | Friday | May 12 | 8:30AM |
| MW | 3:00PM | Wednesday | May 10 | 12:30PM |
| F | 1:30PM | Friday | May 12 | 12:30PM |
| TR | 8:30AM | Tuesday | May 9 | 8:30AM |
| TR | 10:00AM | Thursday | May 11 | 8:30AM |
| TR | 11:30AM | Tuesday | May 9 | 12:30PM |
| TR | 1:00PM | Thursday | May 11 | 12:30PM |

# Undergraduate Academic Departments, Faculty, Programs and Courses

***This listing of a course in this catalog is not a guarantee that the course will be offered in any particular semester: course offerings are subject to change in response to student enrollment, faculty availability, changes in program requirements and other circumstances.***

**Course Numbering:** The 100 level offerings are introductory or survey courses that generally do not require prerequisites. The 200 level courses are intermediate and may require prerequisite courses. The 300 level courses are advanced and require prerequisite courses. The 400 level courses are generally for seniors and include seminars, independent study, and internships. Courses at the 900 level are open only to post-baccalaureate students.



# Art
## Department of Visual and Performing Arts

### Faculty

Michael C. Hachey, Professor (1993), Department Chair
B.F.A., M.F.A., Massachusetts College of Art

Michel D. Merle, Professor (1971)
A.B., M.A., Columbia University; M.F.A., Instituto Allende

Amaryllis Siniossoglou, Assistant Professor (2005)
M.F.A., University of Massachusetts, Amherst; Ecole Nationale Superieure Des Beaux-Arts, Paris, France; Diplome Superieur d' Art Plastique; School of Art, Athens, Greece; Drawing and Painting School, Certificate

Catherine Wilcox-Titus, Assistant Professor (2004)
B.A., University of Toronto; M.S., Simmonds College; M.A., Ph.D., Boston University

The art program is designed to sharpen visual perception, to deepen understanding and experience of art history, and to teach technical skills and theoretical framework for the production of art and design. Interdisciplinary courses relate the visual arts to the arts of music and theatre, in both contemporary and historic periods.

All courses offered by this discipline can be used to fulfill the Fine Arts distribution requirement.

**Requirements for a Minor in Art: 18 credits, including a minimum of three credits in art history and at least one art course at the 300-level.** The College reserves (with the student's permission) the right to retain some student work for demonstration and exhibition. The art program is committed to providing a foundation for students' ongoing appreciation and creative involvement in the visual arts, design, and education.

## Art Courses

### AR 110 Art History: Stonehenge to the Renaissance

An examination of the visual arts from prehistory to the Renaissance, focusing on trends and developments in Europe and the Mediterranean.
*Offered every year. 3 credits.*

### AR 111 Art History: The Renaissance to Picasso

Study of the interrelationships of the visual arts with political, social, and intellectual developments in the Western world.
*Offered every year. 3 credits.*

### AR 117 Visual Design: Two-Dimensions

A foundation for visual literacy through studio work utilizing such art elements as line, form, color, and texture.
*Offered every year. 3 credits.*

## AR 122 Visual Design: Three-Dimensions

A foundation for visual literacy through studio work utilizing spatial elements such as plane, mass, volume, and structure.
*Offered every year. 3 credits.*

## AR 130 Painting I

An introduction to the fundamentals of historical painting styles, techniques, and materials used, with emphasis on visual perception and expression.
*Offered every year. 3 credits.*

## AR 140 Drawing I

The development of visual awareness, technical skills, and individual expression in drawing media.
*Offered every year. 3 credits.*

## AR 150 Life Studio I

Focus on the human figure through different modes of drawing and painting. Attention to structure and anatomy and their expressive aspects.
*Offered every year. 3 credits.*

## AR 160 Sculpture I

Three-dimensional studio creations through a variety of traditional and contemporary materials. Both realistic and abstract concepts are explored.
*Offered every year. 3 credits.*

## AR 165 Creating Cultural Forms

A studio course. Concepts of art forms created by a variety of world cultures and art movements of the past and present.
*Offered every year. 3 credits.*

## AR 200 History of American Art

A survey of the visual arts in the United States, from the Colonial Period to the present.
*Offered every 2 years. 3 credits.*

## AR 212 History of Medieval Art

The transformation of the Greco-Roman classical tradition into the Christian foundations of Modern Europe as seen through the visual arts.
*Offered every 3 years. 3 credits.*

## AR 213 History of Renaissance and Baroque Art

Intellectual and artistic trends from c. 1400 to 1700 are examined in the light of social, political, and religious developments.
*Offered every 3 years. credits 3.*

## AR 220 Foundations of Modern Art

Influential nineteenth-century developments, such as Romanticism, Realism, and Impressionism, are discussed in relationship with early twentieth-century art.
*Offered every 2 years. 3 credits.*

## AR 222 Art of the Twentieth Century

Surrealism and other art movements in Europe and America from the end of the first World War to the present.
*Offered every 3 years. 3 credits.*

## AR 230 Printmaking

Introduction to the techniques and aesthetics of etching and relief. Prints by major artists are examined.
*Offered every year. 3 credits.*

## AR 235 Mixed Media

*Prerequisite: One studio course*

Advanced investigation and experimentation in the use of interrelated media and materials of two- and three-dimensions.
*Offered every 2 years. 3 credits.*

## AR 240 Watercolor

A studio course exploring various techniques and expressive forms used by watercolorists of the past and present.
*Offered every year. 3 credits.*

### AR 250 The Computer in Studio Art

Use the computer as a medium for visual art. Software programs for computer-generated drawing, painting and collage.
*Offered every year. 3 credits.*

### AR 300 Painting II

*Prerequisite: AR 130 or consent of instructor*

Continuation of painting with emphasis on individual development through interpretive projects.
*Offered every 2 years. 3 credits.*

### AR 302 Drawing II

*Prerequisite: AR 140 or consent of instructor*

Advanced projects in drawing with increasing emphasis on individual direction.
*Offered every 2 years. 3 credits.*

### AR 305 Life Studio II

*Prerequisite: AR 150 or consent of instructor*

Continued drawing and painting focusing on the human figure, with emphasis on interpretive and individual development.
*Offered every 2 years. 3 credits.*

### AR 306 Sculpture II

*Prerequisite: AR 160 or consent of instructor*

Further exploration of sculptural form with a diversity of materials, techniques, and expressive meaning.
*Offered every 2 years. 3 credits.*

### AR 320 Environmental Design

*Prerequisite: AR 117 or AR 130, or consent of instructor*

Investigates elements responsible for the visual aesthetics of man-made objects, the built environment, and cities. Some model building.
*Offered every 2 years. 3 credits.*

### AR 340 Morality and the Visual Arts

*Prerequisite: One art history course or consent of instructor*

Explores, in a global context, traditional and controversial moral attitudes, questions of pornography, limits of societal acceptance from the ancient world to the present.
*Offered every 3 years. 3 credits*

### AR 345 Death in the Visual Arts

*Prerequisite: One art history course or consent of instructor*

Explores the ways attitudes toward Death reveal society's values and views on life. Eastern and Western traditions from the ancient world to the present are discussed.
*Offered every 3 years. 3 credits.*

### AR 350 Special Topics in Art

*Prerequisite: One studio course or consent of instructor*

A course covering topics which vary in response to specific student and faculty interest.
*Offered every 3 years. 3 credits.*

### AR 400 Independent Study in Art

*Prerequisites: Limited to art minors with minimum of 12 credits*

An opportunity for further individual study in a special interest. Self-directed under supervision of faculty.
*Offered every 3 years. 3 credits.*

### AR 402 Internship in Art

*Prerequisite: Limited to art minors*

An individual experience through internship with a sponsoring community organization, professional institution or individual, i.e., museums, galleries, artists.
*Offered every 3 years. 3-6 credits.*

# Biology
## Department of Biology

## Faculty

Latifeh Amini-Kormi, Professor (1994)
B.S., Teheran University; Ph.D., University of Pennsylvania

Peter M. Bradley, Professor (1993)
B.Sc., University of Aberdeen; Ph.D., Worcester Polytechnic Institute

Ellen F. Fynan, Professor (1993)
B.S., University of Maine; Ph.D., Thomas Jefferson University

Ruth C. Hartling, Assistant Professor (2000)
B.S., Calvin College; M.S., Ph.D., University of Massachusetts (Amherst)

Steven J. Oliver, Assistant Professor (2003)
B.A., University of Montana; Ph.D., Boston University

Surindar M. Paracer, Professor (1970)
B.S., Punjab University; M.S., South Dakota State University; Ph.D., University of California

Maura Collins Pavao, Assistant Professor (2001)
B.S., Worcester Polytechnic Institute; M.S., Ph.D., Rutgers University

Guillermo Paz-y-Mino C̃., Assistant Professor (2004)
B.S., Pontifical Catholic University of Ecuador; B.A., University of Kent-Canterbury, UK; M.Sc., University of Missouri (St. Louis); Ph.D. University of Missouri (St. Louis)

Maureen D. Shamgochian, Professor (1993), Department Chair
B.S., Worcester State College; Ph.D., University of Massachusetts

Antonieto S. Tan, Professor (1993)
B.S., M.S., University of San Carlos; Ph.D., University of Southern Mississippi

Randall Tracy, Assistant Professor (2003)
B.S., M.S., University of Connecticut; Ph.D., Arizona State University

The faculty in the life sciences offer courses and programs to provide for the general education of students and preparation of the major and minor in Biology. A program leading to the Master of Science in Biotechnology degree is also available. The biology courses may be supplemented with courses in nuclear medicine technology, administrative studies, health education, sports medicine and public health biology. Beta Beta Beta, the national honor society in biology, is available to distinguished majors.

**Requirements for a Major in Biology**
*Required Biology courses: 38 credits*

| | |
|---|---|
| BI 105 | Introduction to Biology I (Cellular Genetics) |
| BI 106 | Introduction to Biology II (Diversity of Life) |
| BI 201 | Cell Biology |
| BI 202 | Principles of Ecology |

BI 203 Genetics
BI 204 Microbiology
BI 404 Biology Seminar
3 Upper Division Electives

*Ancillary Requirements: 28-34 credits*

| | |
|---|---|
| MA 110 & MA 150 | College Algebra and Statistics **or** |
| MA 200 & MA 201 | Calculus I and II |
| PY 221 & PY 222 | General Physics I and II **or** |
| PY 241 & PY 242 | Physics I and II |
| CH 120 & CH 121 | General Chemistry I and II |
| CH 201 & CH 202 | Organic Chemistry I and II |

***Upper division Biology electives***

***Cellular/Molecular Biology***

BI 324 Endocrinology
BI 371 Molecular Biology
BI 372 Immunology
BI 375 Virology
BI 410 Biochemistry
BT 375 Tissue Culture
BT 376 Biotechnology
BT 378 Bioinformatics

***Organismal Biology***

BI 304 Comparative Vertebrate Anatomy
BI 306 Developmental Biology
BI 313 Histology
BI 315 Neurosciences
BI 321 Comparative Physiology
BI 340 Plant Sciences
BI 341 Mycology
BI 342 Plant Physiology
BI 300 Human Biology
BI 360 Animal Behavior

***Population and Environmental Biology***

BI 301 Invertebrate Zoology
BI 302 Entomology
BI 303 Parasitology
BI 331 Marine Biology
BI 333 Vertebrate Natural History Ectotherms
BI 334 Wildlife Investigational Techniques
BI 344 Soil Biology
BI 352 Symbiosis and Evolution

(**Note:** Pre-med and Graduate school candidates should also take CH 203 & CH 204 Organic Chemistry laboratory in addition to CH 201 and CH 202)

A minimum of three upper division laboratory courses (BI 300- or BI 400-level) are to be selected from three categories of Biology electives. No more than two courses can be taken from any single group. The courses should be selected with the advice and consent of the faculty advisor. A grade point average of 2.0 must be maintained in biology courses and in the ancillary science and mathematics courses. Students considering graduate and professional work should take, as a recommended minimum, courses in general physics, calculus, introduction to computer science and statistics.

**Requirements for a Minor in Biology**

BI 105 Introduction to Biology I
BI 106 Introduction to Biology II
BI 201 Cell Biology
BI 202 Principles of Ecology
BI 203 Genetics
BI 204 Microbiology

A minimum of 6 credits in the ancillary sciences

**Requirements for a Major in Biology, Concentration in Nuclear Medicine Technology:**
48 credits

The College offers, in conjunction with the University of Massachusetts Medical School, a concentration in Nuclear Medicine Technology (NMT), administered by a program advisory committee and accredited by the Joint Review Committee on Educational Programs in Nuclear Medicine Technology. (Inquiries regarding accreditation may be directed to this committee at 1144 West 3300 South, Salt Lake City, Utah 84119-3330; [801] 975-1144.)

Nuclear medicine is a study of techniques developed in hospitals, particularly in radiology, pathology and internal medicine departments. These techniques are used for both diagnostic and therapeutic purposes. Students interested in being considered candidates for admission to the program should contact either the program coordinator or the nominating committee as early in their college career as possible. The program is limited to a relatively small number of students.

Prerequisites for the program include successful completion of:

| | |
|---|---|
| BI 161 & BI 162 | Human Anatomy and Physiology I and II |
| CH 110 & CH 111 | Introduction to General, Organic & Biochemistry I and II |
| **or** | |
| CH 120 & CH 121 | General Chemistry I and II |
| MA 200 & MA 201 | Calculus I and II |
| PY 221 & PY 222 | General Physics I and II **or** |
| PY 241, PY 242, & PY 243 | Physics I, II, and III |

Candidates must visit the Medical School Nuclear Medicine Department and file intent to enroll forms with the Worcester State College Nuclear Medicine Technology coordinator prior to being considered a candidate for the program.

Technical specialty courses of the NMT Program are:

| | |
|---|---|
| Introduction and Hospital Orientation (no credit) | |
| BI 252 | Radiation Biology |
| BI/PY 451 & BI/PY 452 | Nuclear Instrumentation I and II |
| BI 461, BI 462, BI 463, & BI 464 | NMT Clinical Practicum I, II, III and IV |
| BI/CH 453 | Radiopharmaceuticals |
| BI/CH 465 & BI/CH 466 | Clinical Nuclear Medicine Technology I and II |

Students majoring in Biology, Biotechnology, Chemistry or Natural Science may pursue the Concentration in Nuclear Medicine Technology.

**Major in Biology, Concentration in Bioinformatics**

This interdisciplinary Minor is designed for Biology, Biotechnology, Chemistry and Computer Science Majors.

| **Required courses:** | | **Credits** |
|---|---|---|
| CS 140 | Computer Science I | 3 |
| CS 145 | Computer Science II | 3 |
| BI 201 | Cell Biology or BI 203 Genetics | 4 |
| BT 378 | Bioinformatics* | **3** |

**Note: BT 378 Bioinformatics requires BI 201 or BI 203 as a prerequisite.*

**Elective courses:** **Credits**

*Select elective courses from the following groups depending upon the major.***

**I. Biology Courses**

| | | |
|---|---|---|
| BI 201 | Cell Biology | 4 |
| BI 203 | Genetics | 4 |
| BI 204 | Microbiology | 4 |

| | | |
|---|---|---|
| BI 375 | Virology | 4 |
| BI 371 | Molecular Biology | 4 |
| BI 306 | Developmental Biology | 4 |
| BT 376 | Biotechnology | 4 |
| BI 353 | Tree of Life: Evolutionary Systematics | 4 |

**II. Chemistry Courses**

| | | |
|---|---|---|
| CH 120 | General Chemistry I | 4 |
| CH 121 | General Chemistry II | 4 |
| CH 201 | Organic Chemistry I (lecture) | 3 |
| CH 202 | Organic Chemistry II (lecture) | 3 |
| CH 410 | Biochemistry I | 4 |
| CH 415 | Nucleic Acids Biochemistry | 3 |

**III. Computer Science Courses**

| | | |
|---|---|---|
| CS 242 | Data Structures | 3 |
| CS 282 | UNIX Systems Programming | 3 |
| CS 400 | Database Design | 3 |

**IV. Math Courses**

| | | |
|---|---|---|
| MA 200 | Calculus I | 4 |
| MA 201 | Calculus II | 4 |
| MA 220 | Discrete Math I | 3 |
| MA 302 | Probability and Statistics | 3 |
| MA 303 | Mathematical Modeling | 3 |

***Number of electives needed beyond the requirements of the major.*

| | |
|---|---|
| **Biology Major** | at least three course in Group III |
| **Biotechnology Major** | at least three course in Group III |
| **Chemistry Major** | at least three courses in Group III and one course in Group II |
| **Computer Science Major** | at least one course from Group I, two courses from Group II, and MA 303 from Group IV |

The purpose of this interdisciplinary concentration is to prepare students to enter the computer intensive fields of bioinformatics, computational biology, computational chemistry, and molecular modeling including genomics and proteomics. In the advent of the Human Genome Project, an explosion of genomic information has occurred, and databases such as GenBank and EMBL have grown at a rate that now requires storage, organizing and indexing of the information. Questions of gene expression have led to computational biology, the process of analyzing genomic sequences and to the field of proteomics, the understanding of protein structure and function. The information obtained by computational biology and computational chemistry is used in the design of new drugs to treat a variety of diseases. Major drug and biotechnology companies are seeking people trained in bioinformatics.

# Biology Courses (Undergraduate)

### BI 100 Freshman Biology Seminar

This course supports the students efforts in developing relationships and learning how to learn in the sciences. This course will cover practical skills such as data analysis, writing and presenting, as well as explore the moral, ethical and social implications of current biological issues.
*1 Hour per week. 1 credit.*

## BI 105 Introduction to Biology I

Cellular, molecular and genetic concepts in Biology. The chemical basis of life, respiration, photosynthesis and micro evolution. Three lecture hours and two laboratory hours per week.
*Offered every year. 4 credits.*

## BI 106 Introduction to Biology II

Origin and diversity of living things. Emphasizes structures and functions with macro evolution, physiology, zoology, botany and ecology. Three lecture hours and two laboratory hours per week.
*Offered every year. 4 credits.*

## BI 111 Social Biology

This course considers the interface between current biological technologies and the social, cultural, legal, and moral postures of modern man.
*Offered every year. 3 credits.*

## BI 112 Diseases and Mankind

Diseases of ancient and modern man; the impact on history, religion, science, art and philosophy.
*Offered every year. 3 credits.*

## BI 114 Plants and Human Affairs

Man's dependence upon plants and their influence on civilization and its art, religions, literature, folklore, medicine, and human behavior.
*Offered every 2 years. 3 credits.*

## BI 116 Animal Biology

Survey of animal kingdom with emphasis on animal diversity, morphology, life histories, ecological and evolutionary relationships. Three lecture hours and two laboratory hours per week.
*Offered every 3 years. 4 credits.*

## BI 120 Darwinian Revolution

An interdisciplinary perspective on the philosophical, religious, and social impacts of Darwin's theory of evolution by the process of natural selection.
*Offered every 2 years. 3 credits.*

## BI 161 Human Anatomy and Physiology I

Considers human cellular biology, tissues, integumentary, nervous, endocrine, skeletal and muscular systems. Three lecture hours and three laboratory hours per week.
*Offered every year. 4 credits.*

## BI 162 Human Anatomy and Physiology II

*Prerequisites: BI 161*

Considers digestive, respiratory, cardiovascular, urinary, immune and lymphatic systems; water and electrolyte balance, reproduction and embryology. Three lecture hours and three laboratory hours per week.
*Offered every year. 4 credits.*

## BI 199 Selected Topics in Biological Sciences

Each topic is a lecture and/or laboratory course in a selected area of the biological sciences presented by a departmental instructor. Topics will be announced in advance.
*Offered every year. 1-4 credits.*

## BI 201 Cell Biology

Prerequisites: Introductory Chemistry or Biology Courses
The ultra structure, cytochemistry, and molecular functions of cell organelles as related to cell bioenergetic and nuclear phenomena. Three lecture hours and three laboratory hours per week.
*Offered every year. 1-4 credits.*

## BI 202 Principles of Ecology

*Prerequisites: BI 106, 1 college math course (algebra, stats or calculus)*

Basic ecological theory relating to organism-environment interactions; population dynamics and ecosystems. Three lecture hours and three laboratory hours per week.
*Offered every year. 4 credits.*

## BI 203 Genetics

*Prerequisites: BI 105*

Introductory genetics with examples of human inheritance and recent developments in genetic engineering. Three lecture hours and three laboratory hours per week.
*Offered every year. 4 credits.*

## BI 204 Microbiology

*Prerequisites: Introductory chemistry and biology courses*

The structure and replication of microorganisms. Infectious diseases and immune responses are emphasized. Three lecture hours and three laboratory hours per week.
*Offered every year. 4 credits.*

## BI 252 Radiation Biology

*Prerequisites: BI 105, and BI 106 or BI 162*

Basic theories of interaction of ionizing radiations with living and non-living matter; industrial and clinical applications.
*Offered every 3 years. 3 credits.*

## BI 262 Pathophysiology

*Prerequisites: BI 161, BI 162*

Considers altered biophysiologic responses of selected systems in the human body.
*Offered every year. 3 credits.*

## BI 266 Biology of Aging

Considers characteristics of the aging process utilizing the newest theories based upon dynamics, function and metabolic regulations, disease and the acceleration of the aging process.
*Offered every 3 years. 3 credits.*

## BI 271 Basic Kinesiology

*Prerequisites: BI 161*

Structure and function of human skeletal muscles in relation to motion and general body mechanics under normal and stress conditions.
*Offered every year. 3 credits.*

## BI 300 Human Biology

*Prerequisites: BI 105, BI 106*

A systemic approach to the study of human biology. The course will emphasize structure/function relationships and homestatic mechanisms. Three hour lecture and three hour lab.
*Offered every 2 years. 4 credits.*

## BI 301 Invertebrate Zoology

*Prerequisites: BI 105, BI 106*

Considers anatomy, taxonomy (including selected articles of the International Code of Zoological Nomenclature), natural history, and evolutionary relationships of selected invertebrate phyla. Three lecture hours and three laboratory hours per week.
*Offered every 2 years. 4 credits.*

## BI 302 Entomology

*Prerequisite: BI 106*

Considers insects and their allies, chemical and biological control, and special references to agricultural pests and medical entomology. Three lecture hours and three laboratory hours per week.
*Offered every 3 years. 4 credits.*

## BI 303 Parasitology

*Prerequisite: BI 106*

Basic concepts in symbiology, life cycles, epidemiology, disease development, control and prevention of selected human parasites. Three lecture hours and three laboratory hours per week.
*Offered every 2 years. 4 credits.*

## BI 304 Comparative Vertebrate Anatomy

*Prerequisites: BI 105, BI 106*

Considers prochordate and chordate taxonomy and phylogeny; systematic morphological comparison of representative chordates to establish homology, analogy, and evolution. Three lecture hours and three laboratory hours per week.
*Offered every 3 years. 4 credits..*

## BI 306 Developmental Biology

*Prerequisites: BI 105, BI 106 and BI 201 or BI 203*

Study of developmental patterns, cellular differentiation and cell interactions resulting in cellular diversity, organization, and perpetuation of the germ line. Three lecture hours and three laboratory hours per week.
*Offered every 3 years. 4 credits.*

## BI 313 Histology

*Prerequisites: BI 105, BI 106*

The structure and function of animal tissues. Each student is required to prepare tissues using histological methods. Three lectures hours and three laboratory hours per week.
*Offered every 2 years. 4 credits.*

## BI/NS 315 Neurosciences

*Prerequisites: BI 161, BI 162 or BI 105, BI 106*

Structural and functional organization of the central and peripheral nervous system. Principles of normal and abnormal transmission, integration, and storage of information in neuronal pathways. Three lecture hours and three laboratory hours per week
*Offered every year. 4 credits.*

## BI 321 Comparative Physiology

*Prerequisites: BI 105, BI 106*

A comparison of select physiological functions of different animal taxa with mammals used as a reference. Three lecture hours and three laboratory hours per week.
*Offered every 2 years. 4 credits.*

## BI 324 Endocrinology

*Prerequisites: BI 105, BI 106*

The role of endocrine glands in the normal integration of animals; mechanisms of hormone action, function, and interrelationships. Three lecture hours and three laboratory hours per week.
*Offered every 2 years. 4 credits.*

## BI 331 Marine Biology

*Prerequisites: BI 105, BI 106*

Considers the marine environment, its flora and fauna, distribution and production of plankton-nekton-benthos; zoogeography, bioeconomic factors and potential. Three lecture hours and three laboratory hours per week.
*Offered every 2 years. 4 credits.*

## BI 333 Vertebrate Natural History of Ectotherms

*Prerequisites: BI 105, BI 106*

Life histories, adaptations, distribution, systematics, and economic importance of ectothermic (cold-blooded) vertebrates (fish, amphibians, and reptiles) in northeastern U.S. Three lecture hours and three laboratory hours per week.
*Offered every 2 years. 4 credits.*

## BI 334 Wildlife Investigative Techniques

*Prerequisites: BI 106, BI 202*

Considers procedures for collection and analysis of field and laboratory data on vertebrate game populations useful to wildlife biologists. Three lecture hours and three laboratory hours per week.
*Offered every 2 years. 4 credits*

## BI 340 Plant Sciences

*Prerequisites: BI 105 and 106*

Morphology, anatomy, physiology of flowering plants with studies on life cycles, ecological relationships, biochemical processes and evolution of plant diversity. Three lecture hours and three laboratory hours per week.
*Offered every 3 years. 4 credits.*

## BI 341 Mycology

*Prerequisite: BI 106*

The morphology, cytology, and evolution and classification of the fungi. Three lecture hours and three laboratory hours per week.
*Offered every 2 years. 4 credits.*

## BI 344 Soil Biology

*Prerequisites: BI 105 and 106*

Includes study of nutrient cycling, relations between plants, animals and microbes, ecology of polluted soils and soil biotechnology. Three lecture hours and three laboratory hours per week.
*Offered every 3 years. 4 credits.*

## BI 352 Symbiosis and Evolution

*Prerequisites: BI 105 and 106*

Origin and nature of microbial life, evolution of multicellular organisms and the central role played by biological symbioses. Lecture and Laboratory.
*Offered every 2 years. 4 credits*

## BI 353 Tree of Life: Evolutionary Systematics

Principles of evolution and classification of plants and animals. Comparison of phylogenetic systematics, taxonomy, and cladistic analyses.
*Offered every year. 4 credits*

## BI 360 Animal Behavior

*Prerequisite: BI 202*

Survey of ethology and behavioral ecology from an historical and evolutionary perspective. Laboratory involves observation and recording of animal behavior.

*Offered every year. 4 credits*

## BI 371 Molecular Biology

*Prerequisites: BI 201, BI 204; or CH/BI 410*

Emphasis on the molecular biology of the gene. Topics include structure, function, replication, transcription, recombination, mutability, repair and regulation of DNA. Three lecture hours and three laboratory hours per week.
*Offered every 2 years. 4 credits.*

## BI 372 Immunology

*Prerequisites: BI 105, BI 106, BI 204*

Introduction to cellular defense mechanisms in health and disease; antigen-antibody reactions, human immune responses. Three lecture hours and three laboratory hours per week.
*Offered every 2 years. 4 credits.*

## BI 375 Virology

*Prerequisites: BI 105 and 106, BI 204*

Physical structure and replication schemes of viruses; role of viruses in human disease, research and commercial applications. Three lecture hours and three laboratory hours per week.
*Offered every 3 years. 4 credits*

## BT 375 Tissue Culture

*Prerequisite: CH 120, CH 121*

A review of the methods of animal and plant tissue culture. Media preparation, aseptic techniques and cell culture technology. Three lecture hours and three laboratory hours per week.
*Offered every year. 4 credits.*

## BT 376 Biotechnology

*Prerequisite: CH 120, CH 121, BI 201*

Principles and applications of recombinant DNA (molecular & microbial aspects). The Biotechnology Industry, including bioreactor manufacturing standards and government rules. Three lecture hours and three laboratory hours per week.
*Offered every year: 4 credits.*

## BT 378 Bioinformatics

*Prerequisites:BI 201 or BI 203*

Provides an overview of Bioinformatics including database structure, genomics, computational biology and proteomics.
*Offered every 2 years. 4 credits.*

## BI 401 Selected Topics in Biological Sciences

*Prerequisites: Consent of department and instructor*

Each topic is a lecture and/or laboratory course in a selected area of the biological sciences presented by a departmental instructor and/or guest lecturers when appropriate; topic announced in advance.
*Offered every 3 years. 1-4 credits.*

## BI 402 Independent Studies In Biology

*Prerequisites: Consent of department and instructor*

Advanced semi-independent study (by qualified upper-level Biology majors) of an approved biological problem. Faculty supervision required.
*Offered every year. 1-6 credits.*

## BI 403 Biology Internship

*Prerequisite: Consent of department*

Intended for qualified, upper-level biology majors. Faculty advisor required. (Should not be used for major requirements.)
*Offered every year. 1-6 credits.*

## BI 404 Biology Seminar

*Prerequisite: Senior Standing*

Preparation and presentation of biological topics, chosen with the advice and consent of a faculty advisor.
*Offered every year. 2 credits.*

## BI/CH 410 Biochemistry I

*Prerequisite: CH 201, CH 202*

The chemistry of proteins, nucleic acids, carbohydrates, and lipids; enzymes, biological oxidations; and correlations in intermediary metabolism. Three lecture hours and three laboratory hours per week.
*Offered every 2 years. 4 credits.*

## BI/CH 411 Biochemistry II

*Prerequisite: BI/CH 410*

The generation and storage of metabolic energy; biosynthesis of macromolecular precursors, DNA, RNA, and protein; and biochemical regulation. Three lecture hours and three laboratory hours per week.
*Offered every 2 years. 4 credits.*

## BI/PY 451 Nuclear Instrumentation I

*Prerequisite: Consent of NMT coordinator*

Structure, functions, and interactions of particulate and nonparticulate radiations with matter; detection, calibration, dosage, and statistical methods.
*Offered every year. 4 credits.*

## BI/PY 452 Nuclear Instrumentation II

*Prerequisite: Consent of NMT coordinator*

Designed to further the skills of operating, calibrating, and performing routine maintenance on scanners, gamma cameras, well-counters, and liquid scintillation counters.
*Offered every year. 4 credits.*

## BI/CH 453 Radiopharmaceuticals

*Prerequisite: Consent of NMT coordinator*

Fundamental concepts of radiopharmaceutical production and use; includes basic radiochemistry.
*Offered every year. 4 credits.*

## BI 461/BI 462 NMT Clinical Practicum I and II

*Prerequisite: Consent of NMT coordinator*

Students will spend several days a week in a hospital observing the ongoing activities and procedures of a nuclear medicine facility.
*Offered every year. 5 credits each.*

## BI 463 NMT Clinical Practicum II

*Prerequisite: Consent of NMT coordinator*

Guided and supervised by clinical instructors, students begin to acquire manual skills essential to nuclear medicine technology; and in performing all routine nuclear medicine examination and laboratory procedures.
*Offered every year. 6 credits.*

## BI 464 NMT Clinical Practicum III

*Prerequisite: Consent of NMT coordinator*

Upon completion of this practicum, students should be skilled in performing both routine and non-routine nuclear medicine examinations and laboratory procedures.
*Offered every year. 4 credits.*

## BI/CH 465 Clinical Nuclear Medicine Technology I

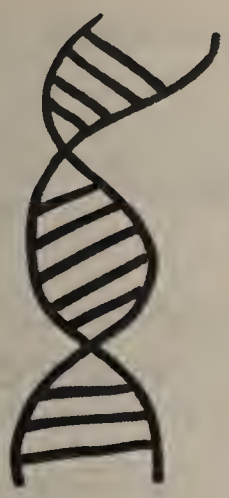
*Prerequisite: Consent of NMT coordinator*

Considers why a specific test is indicated; which radiopharmaceutical is preferred; and how the basic image appearance, and/or numerical data may be altered by pathological states.
*Offered every year. 4 credits.*

## BI/CH 466 Clinical Nuclear Medicine Technology II

*Prerequisite: Consent of NMT coordinator*

Case presentations using formulas, charts, tables, and calculations to arrive at examination parameters such as dose, number of counts, speed of instrument, etc.
*Offered every year. 4 credits.*



# Biotechnology
## Department of Biology

## Faculty

Maura Collins Pavao, Assistant Professor (2001)
Coordinator of the Biotechnology Program
B.S., Worcester Polytechnic Institute; M.S., Ph.D., Rutgers University

Peter M. Bradley, Professor (1993)
B.Sc., University of Aberdeen; Ph.D., Worcester Polytechnic Institute

Worcester State College offers a program in biotechnology to meet the need for skilled assistants and associates in the experimental laboratory and in manufacturing facilities of the biotechnology industry. Biotechnology graduates will be qualified for positions in biotechnology companies that include: cell culture and fermentation manufacturing technician, cell culture and manufacturing research associate, purification manufacturing technician, purification manufacturing associate, aseptic fill manufacturing technician, aseptic fill manufacturing research associate, quality control chemistry analyst, quality control microbiologist and quality assurance documentation technical writer. In addition, opportunities also exist for students to pursue further (graduate) education.

Each student will be strongly advised to participate in an internship in a biotechnology company.

The Biotechnology major is sponsored jointly by the departments of Biology, Chemistry and Natural Science & Physics.

**Faculty Advisors**

Professor William A. Belanger, Natural Science and Physics
Dr. Peter M. Bradley, Biology
Dr. Alan Cooper, Chemistry
Dr. Maura Collins Pavao, Biology (Biotechnology Program Coordinator)
Dr. John Goodchild, Chemistry

**Freshman Year**

| *Semester 1* | | | *Semester 2* | | |
|---|---|---|---|---|---|
| EN 101 | English Composition I* | 3 | EN 102 | English Composition II | 3 |
| CH 120 | General Chemistry I | 4 | CH 121 | General Chemistry II | 4 |
| MA 190 | Precalculus* | 4 | MA 150 | Statistics I | 3 |
| | History Elective | 3 | CS 120 | Microcomputer Applications | 3 |
| | Freshman Biology Seminar | 2 | | Distribution elective | 3 |
| | Total 16 Credits | | | Total 16 Credits | |

**Sophomore Year**

| ***Semester 1*** | | | ***Semester 2*** | | |
|---|---|---|---|---|---|
| CH 201 | Organic Chemistry | 3 | BI 201 | Cell Biology | 4 |
| CH 203 | Organic Chemistry Lab | 2 | PY 222 | General Physics II | 4 |
| BI 204 | Microbiology | 4 | MA 201 | Calculus II | 4 |
| PY 221 | General Physics I | 4 | Distribution Elective | | 3 |
| MA 200 | Calculus I | 4 | | | |
| | | Total 17 Credits | | | Total 15 Credits |

**Junior Year**

| ***Semester 1*** | | | ***Semester 2*** | | |
|---|---|---|---|---|---|
| EN 252 | Technical Writing or | | | | |
| EN 253 | Business Communications | 3 | Distribution Elective | | 3 |
| | Distribution Elective | 3 | BT 375 | Tissue Culture | 4 |
| BT 376 | Biotechnology | 4 | Major Elective | | 4 |
| | Major Elective | 4 | Distribution Elective | | 3 |
| | Distribution Elective | 3 | Distribution Elective | | 3 |
| | | Total 17 Credits | | | Total 17 Credits |

**Senior Year**

| ***Semester 1*** | | | ***Semester 2*** | | |
|---|---|---|---|---|---|
| Major Elective | | 4 | CH 210 | Chemical Analysis | 4 |
| BT 450 | Internship in Biotechnology | 3-6 | CH 410 | Biochemistry I | 4 |
| | ***(Strongly Advised)*** | | Distribution Elective | | 3 |
| | Distribution Elective | 3 | Distribution Elective | | 3 |
| | Distribution elective | 3 | BT 410 | Biotechnology Seminar | 1 |
| | | Total 13-16 Credits | | | Total 18 Credits |

**Major Electives**

| | | | | | |
|---|---|---|---|---|---|
| BI 203 | Genetics | 4 | CH 202 | Organic Chemistry II | 3 |
| BI 372 | Immunology | 4 | CH 204 | Organic Chemistry II Lab | 2 |
| BI 371 | Molecular Biology | 4 | PY 310 | Modern Physics | 3 |
| BI 252 | Radiation Biology | 4 | CH 411 | Biochemistry II | 4 |
| BI 375 | Virology | 4 | BI 341 | Mycology | 4 |
| | | | BT 378 | Bioinformatics | 4 |
| | | | CH 350 | Medicinal Chemistry | 3 |

*Additional Electives are being developed.*

**May be waived.*

# Biotechnology Courses (Undergraduate)

### BT110 Introduction to Concepts of Biotechnology

The uses of Biotechnology. The scientific, economic, social, ethical, and political impact of Biotechnology.
*Offered every 2 years. 3 credits.*

### BT 375 Tissue Culture

*Prerequisite: CH 120, CH 121*

A review of the methods of animal and plant tissue culture. Media preparation, aseptic techniques and cell culture technology. Three lecture hours and three laboratory hours per week.
*Offered every year. 4 credits.*

## BT 376 Biotechnology

*Prerequisite: CH 120, CH 121, BI 201*

Principles and applications of recombinant DNA (molecular & microbial aspects). The Biotechnology Industry including bioreactor manufacturing standards and government rules. Three lecture hours and three laboratory hours per week.
*Offered every year. 4 credits.*

## BT 378 Bioinformatics

*Prerequisites:BI 201 or BI 203*

Provides an overview of Bioinformatics including database structure, genomics, computational biology and proteomics.
*Offered every 2 years. 4 credits.*

## BT 410 Biotechnology Seminar

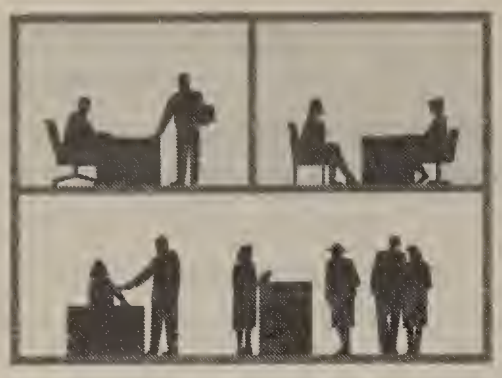
*Prerequisites: Consent of Department*

Up-to-date developments in Biotechnology; preparation and presentation of technical literature. Students will study new techniques and procedures used by the industry.
*Offered every year. 1 credit.*

## BT 450 Internship in Biotechnology

*Prerequisite: Consent of department*

Qualified upper-level biotechnology majors can learn experimental techniques by working in a research laboratory or a professional manufacturing environment.
*Offered every year. 3-6 credits.*



# Business Administration

## Department of Business Administration and Economics

### Faculty

Laurie A. Dahlin, Assistant Professor (2001), CMA
B.S., Nichols College; M.B.A., Assumption College; D.B.A., Nova Southeastern University

Robert C. Fink, Assistant Professor (2002)
B.A., Coe College; M.B.A., University of Iowa; D.B.A., Boston University

Renuka Jain, Professor (1985), Department Chair
M.Sc., Rajasthan University; Ph.D., McGill University

Donald L. Joyal, Professor (1977)
B.S., University of Southern New Hampshire; M.B.A., Bryant College; M.A., Suffolk University; C.A.G.S., Boston State College; C.A.G.S., University of Massachusetts

Tejendra N. Kalia, Assistant Professor (2004)
B.E., Indian Institute of Technology; M.E., McGill University; M.B.A., Anna Maria College; D.B.A., Nova Southeastern University

Augustus N. Luparelli, Assistant Professor (2002)
B.A., Fitchburg State College; M.A., Worcester State College; Ph.D., University of Connecticut

Joan (Jay) Mahoney, Associate Professor (2002)
B.S., North Adams State College; M.B.A., Western New England College; Ph.D., State University of New York at Buffalo

Dennis P. Moore, Professor (1983)
B.S., University of Southern New Hampshire; M.B.A., Northeastern University; M.S., Bentley College; CPA, Massachusetts

Rodney Oudan, Assistant Professor (2005)
CIM Certificate in Marketing, Berkshire, England; Post-Certificate, Marketing and Economics (B.S. Equivalent), St. Augustine, Trinidad; M.M.D., Cambridge College, Cambridge, MA; D.B.A. Nova Southern University, Ft. Lauderdale, FL

Robert Shafner, Associate Professor (1999)
M.P.H., Boston University School of Medicine; R.N., Worcester State College/Memorial Hospital Joint Program in Nursing

Maureen C. Stefanini, Professor (1967)
B.S., Ed.M., Worcester State College; M.S., Management, Massachusetts Institute of Technology; Ed.D., Boston University

James J. Swanson, Professor (1984)
B.S., Bryant University; M.B.A., University of Rhode Island; M.S.T., Bryant College; CPA, Rhode Island

The Business Administration program enables participants to acquire competencies necessary to manage the human, financial and technological resources of organizations. The major in Business Administration offers three concentrations: Management, Accounting/ Finance, Marketing.

Admission Requirements: Application to the department after completion of the following prerequisite courses:

| | |
|---|---|
| CS 120 | Microcomputer Applications in Business I |
| EC 110 | Introduction to Microeconomics |
| EC 120 | Introduction to Macroeconomics |
| EN 253 | Business Communications |
| MA 150 or EC 207 | Statistics |
| MA 202 or EC 305 | Business Calculus/Introduction to Mathematical Economics |

To be accepted to the major, a student must complete all prerequisite courses with a C (2.0) average.

**Requirements for a Major in Business Administration:** 48 credits in Business Administration, of which a minimum of 25 must be completed at Worcester State College.

Common Business Core: 33 credits

Lower Division

| | |
|---|---|
| BA 200 | Principles of Management and Organizational Behavior |
| BA 210 | Fundamentals of Accounting I |
| BA 220 | Fundamentals of Accounting II |
| BA 230 | Managerial Accounting **or** BA 374 Cost Accounting |

Upper Division

| | |
|---|---|
| BA 305 | Organizational Dynamics |
| BA 312 | Operations Management I |
| BA 316 | Financial Management |
| BA 318 | Principles of Marketing |
| BA 350 | Business Information Systems and Applications |
| BA 480 | The Legal Environment of Business **or** BA 320 Business Law |
| BA 490 | Business Strategy and Policy |

*Other Upper Division (300-level or above)*

*Business Administration courses: at least 15 credits*

**Requirements for a Major in Business Administration, Concentration in Management:** The Common Business Core together with four additional courses chosen with the assistance of the advisor.

**Requirements for a Major in Business Administration, Concentration in Accounting/ Finance:** The Common Business Core together with four additional courses in the field of accounting and finance chosen with the assistance of the advisor.

**Requirements for a Major in Business Administration, Concentration in Marketing:** The Common Business Core together with four additional courses in the field of marketing chosen with the assistance of the advisor.

**Admission Requirements for a Minor in Business Administration:** Application to the department after completion of the prerequisite courses. For acceptance to the minor, students must complete the six prerequisite courses with a C (2.0) average.

**Requirements for a Minor:** 27 credits as follows

Prerequisite courses

| | |
|---|---|
| CS 120 | Microcomputer Applications in Business |
| EC 207 | Statistics/or MA 150 Statistics |
| EC 110 | Introduction to Microeconomics**/or** Introduction to Macroeconomics |

Required courses

BA 200 Principles of Management and Organizational Behavior
BA 210 Fundamentals of Accounting I
Plus Four (4) additional BA courses

# Business Administration Courses (Undergraduate)

### BA 100 Introduction to Business

Introduction to basic concepts related to business practices; includes examination of local, regional, and national organizations in the business world.
*Offered every year. 3 credits.*

### BA 200 Principles of Management and Organizational Behavior

Study of management practices and behavior in organizational settings. Emphasis on introduction to managerial principles, concepts and fundamentals.
*Offered every year. 3 credits.*

### BA 210 Fundamentals of Accounting I

Principles, concepts, procedures, and techniques of financial accounting necessary to preparation, understanding, and interpretation of accounting information.
*Offered every year. 3 credits.*

### BA 220 Fundamentals of Accounting II

*Prerequisite: BA 210*

Continuation of topics covered in BA 210.
*Offered every year. 3 credits.*

### BA 230 Managerial Accounting

*Prerequisite: BA 220*

Analysis, interpretation and use of accounting data for effective managerial planning, control and decision-making.
*Offered every year. 3 credits.*

### BA 250 Analytical Techniques in Business

*Prerequisites: BA 200, BA 220, CS 120 or 121, MA 150 or EC 207*

Identification and analysis of common business problems using proper quantitative techniques and standard business software.
*Offered every year. 3 credits.*

### BA 300 Organization Theory

*Prerequisite: BA 200*

A macro examination of organizations utilizing current research findings based largely upon a systems/contingency framework, designed to improve organizational effectiveness.
*Offered every 2 years. 3 credits.*

### BA 305 Organizational Dynamics

*Prerequisite: BA 200*

A study of behavior principles which underlie the prevention and solution of problems in both individual and group contexts.
*Offered every year. 3 credits.*

### BA 306 Human Resource Management

*Prerequisite: BA 305*

An examination of human resource management including employment laws, recruiting/selection, training/development, and benefits/compensation administration.
*Offered every 2 years. 3 credits.*

### BA 312 Operations Management I

*Prerequisites: BA 200, CS 120, MA 150 or EC 207*

Applied analysis of operations in service and production systems using quantitative models and calculus; inventory, work measurement, scheduling, quality control.
*Offered every year. 3 credits.*

## BA 315 Quantitative Analysis and Information Systems

*Prerequisite: CS 120*

Introduction to basic quantitative analysis applied to management planning and operations systems. Includes business information systems and applications.
*Offered every 3 years. 3 credits.*

## BA 316 Financial Management

*Prerequisite: BA 220*

Financial analysis, working capital management and basics of capital budgeting.
*Offered every year. 3 credits.*

## BA 318 Principles of Marketing

*Prerequisite: BA 200*

Overview of the full range of activities involved in marketing, develops an understanding of marketing principles, problems, and processes.
*Offered every year. 3 credits.*

## BA 320 Business Law I

*Prerequisite: BA 200*

Introduction to legal concepts as applied to the study of contracts, personal property, sales, and the Uniform Commercial Code.
*Offered every year. 3 credits.*

## BA 321 Business Law II

*Prerequisite: BA 320*

Continuation of topics covered in BA 320. Study of laws of partnerships and corporations.
*Offered every 3 years. 3 credits.*

## BA 350 Business Information Systems and Applications

*Prerequisite: BA 230 or BA 374, CS 120*

Survey of automated business information systems and microcomputer applications with emphasis on business oriented software.
*Offered every year. 3 credits.*

## BA 351 Managing eBusiness

*Prerequisites: IT Minor: Core IT Courses • BA Major: Core BA Courses*
Digitizing new forms of business organizations to create business-to-business partnerships, business-to-consumer relationships, pathways-to-profitability; Legal, Ethical, Social, Political and Global Issues.
*Offered every 2 years. 3 credits*

## BA 362 Accounting for Non-Profit Organizations

*Prerequisite: None*

Specialized area of accounting for unique requirements for non-profit organizations; includes analysis of budgeting, financial statements and other unique accounting requirements needed by management to assess the controls of a non-profit entity.
*Offered every 2 years. 3 credits*

## BA 370 Intermediate Accounting I

*Prerequisites: BA 210, BA 220*

Accounting theory, principles, concepts, and procedures applied to balance sheet and income statement accounts. Presentation and interpretation of financial reports.
*Offered every year. 3 credits.*

## BA 371 Intermediate Accounting II

*Prerequisite: BA 370*

Continuation of BA 370.
*Offered every year. 3 credits.*

## BA 372 Advanced Accounting I

*Prerequisite: BA 370*

Mergers and consolidations; parent and subsidiary relationships; pooling of interests and purchases; fund accounting; price-level accounting.
*Offered every year. 3 credits.*

### BA 373 Advanced Accounting II

*Prerequisite: BA 372*

Special advanced topics including review of Accounting Research Bulletins of the AICPA.
*Offered every 2 years. 3 credits.*

### BA 374 Cost Accounting

*Prerequisites: BA 200, BA 210, BA 220*

Accounting for costs in business enterprises. Emphasis placed on fundamental principles including job order, process, and standard costs.
*Offered every year. 3 credits.*

### BA 375 Federal Income Taxes I

*Prerequisite: BA 370*

A study of federal income taxation as applied to individuals.
*Offered every year. 3 credits.*

### BA 376 Auditing

*Prerequisite: BA 370*

Basic auditing concepts and developments and their application to the examination, evaluation and reporting of financial data.
*Offered every year. 3 credits.*

### BA 377 Federal Income Taxes II

*Prerequisite: BA 375*

Federal income taxes for corporations and partnerships.
*Offered every 2 years. 3 credits.*

### BA 400 Management and Organizational Behavior I

*Prerequisite: BA 305*

Study of concepts, theory, research, and operational problems of organizational behavior; work groups and intergroup behavior models.
*Offered every 3 years. 3 credits.*

### BA 401 Management and Organizational Behavior II

*Prerequisite: BA 400*

Continuation of topics covered in BA 400 with additional theory and case studies; behavioral science/systems approach is taken
*Offered every 3 years. 3 credits.*

### BA 404 Corporate Finance

*Prerequisite: BA 316*

Advanced capital budgeting, capital structure, long-term financing decisions, dividend policy, computer modeling, comprehensive financial strategy cases.
*Offered every 2 years. 3 credits.*

### BA 406 Trends in Marketing

*Prerequisite: BA 318*

Integrates all aspects of marketing theory through readings, case studies, class projects, individual projects, and computer simulation of marketing decisions.
*Offered every 2 years. 3 credits.*

### BA 408 Operations Management II

*Prerequisite: BA 312*

Continuation of topics of BA 312 with focus on production planning and flow.
*Offered every 3 years. 3 credits.*

### BA 409 Quantitative Analysis and Techniques I: Linear Models for Administration

*Prerequisite: BA 315*

Application of QA techniques to problems of linear programming, inventory models, and PERT-CPM networks.
*Offered every 3 years. 3 credits.*

## BA 411 Purchasing, Materials Management, and Inventory Control

*Prerequisite: BA 312*

Detailed analysis of inventory control, including purchasing MRP, inventory control models, quality sampling, and transportation.
*Offered every 3 years. 3 credits.*

## BA 415 Investment Analysis

*Prerequisite: BA 316*

Survey of investment vehicles, including stocks, bonds, real estate, commodities, mutual funds, and collectibles. Modern portfolio and valuation theories.
*Offered every year. 3 credits.*

## BA 416 Financial Markets and Institutions

*Prerequisite: BA 316*

Study of banks, investment banking, money markets, and the financial service industry as they affect long and short-term financing decisions.
*Offered every 3 years. 3 credits.*

## BA 420 Marketing Research

*Prerequisite: BA 318*

Nature and scope of marketing research. Application of scientific methods, sources, and collection of data, reporting and evaluation.
*Offered every year. 3 credits.*

## BA 422 Retailing

*Prerequisite: BA 318*

Demand analysis, consumer behavior, and planning and control of the merchandising functions; retailing as a career.
*Offered every 3 years. 3 credits.*

## BA 424 Advertising Management

*Prerequisite: BA 318*

Advertising from a marketing manager's perspective. Consumer, industrial, and professional promotion strategies with execution and control activities.
*Offered every 3 years. 3 credits.*

## BA 426 Consumer Behavior

*Prerequisite: BA 318*

The analysis of the consumer decision process as it affects marketing management decisions. Major factors of influence in this process will be studied including culture, social class, family, and reference groups.
*Offered every 3 years. 3 credits.*

## BA 428 Business to Business Marketing

*Prerequisite: BA 318*

Explores business markets which account for more than half the economic activity globally.
*Offered every 3 years. 3 credits.*

## BA 429 Integrated Marketing Communications

*Prerequisite: BA 318*

This course is designed for students who have an interest in increasing their knowledge of the marketing promotional process.
*Offered every 3 years. 3 credits.*

## BA 430 Administrative Practices and Management

*Prerequisite: BA 305*

Overview and analysis of human conduct in work-organization settings.
*Offered every 3 years. 3 credits.*

## BA 440 International Business

*Prerequisites: BA 316, BA 318*

Focuses upon the international dimensions of management, finance, and marketing as they impact corporate policy and strategy.
*Offered every 2 years. 3 credits.*

### BA 445 Advanced Applications in Computerized Financial Reporting

*Prerequisites: BA 370, BA 374, or BA 230*

Hands-on experience with general ledger accounting software emphasizing advanced level accounting concepts and information reporting systems.
*Offered every 2 years. 3 credits.*

### BA 446 Total Quality Management Systems

*Prerequisite: BA 200*

Examines the "quality" revolution sweeping American business in manufacturing, health care and other service industries both profit and non-profit.
*Offered every year. 3 credits.*

### BA 474 Corporate Law

*Prerequisite: BA 320*

Corporate powers and corporate management. Designed for future corporate executives and accountants.
*Offered every 3 years. 3 credits.*

### BA 480 The Legal Environment of Business

*Prerequisite: BA 200*

The impact of governmental regulation on business and its response will be evaluated by unique debate-type format.
*Offered every year. 3 credits.*

### BA 481 Independent Study in Business Administration

*Prerequisite: BA 200*

Independent study in business administration, usually involving field work which is not an internship.
*Offered every year. 1-6 credits.*

### BA 482 Selected Topics in Business Administration

*Prerequisites: BA 305, BA 316, BA 318*

Selection of topics of mutual interest to the student and faculty.
*Offered every year. 1-6 credits.*

### BA 486 Internship in Business Administration

*Prerequisites: BA 305, BA 316, BA 318*

Practical experience in operations of business. Internships within co-operative firms with on-site supervision and evaluation.
*Offered every year. 1-12 credits.*

### BA 490 Business Strategy and Policy

*Prerequisites: BA 316, BA 318*

Capstone course integrating information provided in the functional areas such as finance, marketing, general management, business legal environment.
*Offered every year. 3 credits.*

### BA 492 Selected Topics in Health Administration

*Prerequisite: BA 361*

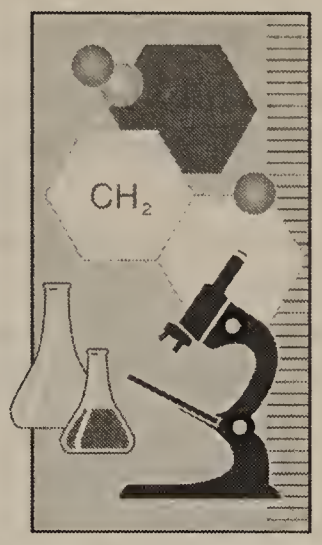
Selected topics in health administration of mutual interest to the student and faculty.
*Offered every 3 years. 1-6 credits.*

### BA 493 Selected Topics in Government Administration

*Prerequisite: BA 361*

Recent developments in public administration of mutual interest to students and faculty.
*Offered every 3 years. 1-6 credits.*

# Chemistry
## Department of Chemistry




## Faculty

Alan D. Cooper, Professor (1970), Department Chair
B.S., Tufts University; M.A., Ph.D., Boston University

Anne M. Falke, Associate Professor (1997)
B.A., University of Rhode Island; Ph.D., University of New Hampshire

Arthur C. Ferguson, Professor (1970)
A.B., Oberlin College; Ph.D., University of Wisconsin

John Goodchild, Assistant Professor (2003)
B.S., Liverpool University; Ph.D., Liverpool University

Margaret E. Kerr, Assistant Professor (2000)
B.S., University of Maine; Ph.D., Wesleyan University

Melvin Merken, Professor (1958)
B.S., M.A., Tufts University; Ed.D., Boston University

The chemistry program provides education and training in chemistry to students who wish to pursue careers in chemistry, the health fields, environmental science, or science teaching.

**Requirements for a Major in Chemistry:** 39-40 credits

| | |
|---|---|
| CH 120 & CH 121 | General Chemistry I and II |
| CH 201 & CH 202 | Organic Chemistry I and II (Lectures) |
| CH 203 & CH 204 | Organic Chemistry Laboratory I and II |
| CH 301 & CH 302 | Physical Chemistry I and II (Lectures) |
| CH 303 | Physical Chemistry Laboratory I |
| CH 210 | Chemical Analysis: An Introduction to Modern Methods |
| CH 475 | Chemistry Seminar |

Plus * an additional two of the following three courses

| | |
|---|---|
| CH 340 | Advanced Inorganic Chemistry |
| CH 410 | Biochemistry |
| CH 470 | Instrumental Analysis |

* Students completing the NMT concentration in the chemistry major are exempted from the requirement to take these additional two courses.

In addition, majors are expected to complete the following ancillary courses: MA 200 & MA 201 Calculus I and II, PY 221 & PY 222 General Physics I and II or PY 241 & PY 242 Physics I and II.

**Requirements for a Major in Chemistry, Concentration in Nuclear Medicine Technology:** See program description under Biology.

**Requirements for a Major in Chemistry, Concentration in Biochemistry:**
All of the courses listed above as required for the major in chemistry plus

| | |
|---|---|
| CH 410 | Biochemistry I |

and two of the following:

| | |
|---|---|
| CH 240 | Pharmacology |
| CH 330 | Environmental Toxicology |
| CH 350 | Medicinal Chemistry |
| CH 411 | Biochemistry II |
| CH 415 | Nucleic Acids Biochemistry |
| CH 425 | Bioorganic Analysis |
| CH 453 | Radiopharmaceuticals |
| BI 371 | Molecular Biology |
| BI 378 | Bioinformatics |

**Requirements for a Major in Chemistry, Concentration in Environmental Chemistry:**
All of the courses listed above as required for the major in chemistry plus

| | |
|---|---|
| CH 320 | Environmental Chemistry |

and two of the following:

| | |
|---|---|
| CH 330 | Environmental Toxicology |
| CH 410 | Biochemistry I |
| CH 470 | Instrumental Analysis |
| GS 250 | Hydrology |
| GS 335 | Hydrogeology |

**Chemistry Honors Program:**
The Chemistry Honors Program is an upper-level program designed to challenge students majoring in chemistry to excel in their course work, to encourage them to extend their program beyond the basic requirements of the major, and to reward and recognize them for so doing.

Students would need to complete the following courses in chemistry:

| | |
|---|---|
| CH 120 & CH 121 | General Chemistry I and II |
| CH 201 & CH 202 | Organic Chemistry I and II (Lectures) |
| CH 203 & CH 204 | Organic Chemistry Laboratory I and II |
| CH 210 | Chemical Analysis: An Introduction to Modern Methods |
| CH 301 & CH 302 | Physical Chemistry I and II (Lectures) |
| CH 303 & CH 304 | Physical Chemistry Laboratory I and II |
| CH 340 | Advanced Inorganic Chemistry |
| CH 410 | Biochemistry |
| CH 470 | Instrumental Analysis |
| CH 475 | Chemistry Seminar |

plus at least 3 semester hours of research under CH 490: Independent Study leading to a thesis or 3 semester hours of internship under CH 480: Chemistry Internship.

In addition, students would be exected to complete the ancillary requirements for the chemistry major in calculus and physics

**Requirements for a Minor in Chemistry: 18 credits**

| | |
|---|---|
| CH 120 & CH 121 | General Chemistry I and II |

Ten (10) additional credits in 200- or higher level chemistry courses

# Chemistry Courses (Undergraduate)

## CH 105 Nature of Chemical Change

The properties of matter viewed through simple reactions of familiar substances. Two lectures and a two-hour laboratory per week.
*Offered every 3 years. 3 credits.*

## CH 110 Introduction to General, Organic, and Biochemistry I

An introductory survey of chemistry. Topics include atomic structure, chemical bonding and reactions, acid-base theory, introduction to organic chemistry. Three lecture hours and three laboratory hours per week.
*Offered every year. 4 credits.*

## CH 111 Introduction to General, Organic, and Biochemistry II

*Prerequisite: CH 110*

Continuation of CH 110. Topics include functional groups and reactions of organic compounds and topics in biochemistry such as carbohydrates, proteins, lipids, and metabolic pathways. Three lecture hours and three laboratory hours per week.
*Offered every year. 4 credits.*

## CH 120 General Chemistry I

Modern survey of chemistry. Topics include chemical equations, properties of gases, atomic structure, periodic table, chemical bonding, chemistry of carbon. Three lecture hours and three laboratory hours per week. CH 120 and 121 provide the foundation for further courses in chemistry.
*Offered every year. 4 credits.*

## CH 121 General Chemistry II

*Prerequisite: CH 120*

Continuation of CH 120. Topics include principles of thermodynamics, acids and bases, reaction rates, oxidation-reduction reactions, and electrochemistry. Three lecture hours and three laboratory hours per week.
*Offered every year. 4 credits.*

## CH 201 Organic Chemistry I (Lectures Only)

*Prerequisites: CH 120, CH 121*

Structure, reactions, mechanisms, and stereochemistry of the alkanes, alkenes, alkynes, dienes, alkyl halides. Introduction to aromatic chemistry.
*Offered every year. 3 credits.*

## CH 202 Organic Chemistry II (Lectures Only)

*Prerequisite: CH 201*

Continuation of CH 201. Reactions and mechanisms of aromatic chemistry; structures and reactions of alcohols, ethers, carboxylic acids, aldehydes, ketones.
*Offered every year. 3 credits.*

## CH 203 Organic Chemistry Laboratory I

*Prerequisite or Corequisite: CH 201*

Techniques of preparation, purification, and identification of aliphatic compounds. One four-hour laboratory per week.
*Offered every year. 2 credits.*

## CH 204 Organic Chemistry Laboratory II

*Prerequisite: CH 203*

Application of basic and more advanced techniques to increasingly complicated synthetic problems. One four-hour laboratory per week.
*Offered every year. 2 credits.*

## CH 210 Chemical Analysis: An Introduction to Modern Methods

*Prerequisites: CH 120, CH 121*

Introduction to modern methods of chemical analysis including gravimetry, acid-base and redox titrations, potentiometry, uv-visible and atomic absorption spectrophotometry, and gas and HPLC chromatography. Two lecture hours and six laboratory hours per week.
*Offered every year. 4 credits.*

### CH 220 Chemistry of Energy and the Environment

*Prerequisites: CH 120, CH 121*

Chemistry of the environment; chemical aspects of energy; and the environmental aspects of energy production and use.
*Offered every 3 years. 3 credits.*

### CH 240 Pharmacology

*Prerequisites: CH 110, CH 111, BI 161, BI 162*

Modes of action of some of the major categories of drugs, their biological activities and responses within the human system.
*Offered every year. 3 credits.*

### CH 301 Physical Chemistry I (Lectures Only)

*Prerequisites: CH 120, CH 121, MA 200, MA 201*

Study of the first, second, and third laws of thermodynamics, and of chemical, solution, and phase equilibria. Three lecture hours per week.
*Offered every year. 3 credits.*

### CH 302 Physical Chemistry II (Lectures Only)

*Prerequisite: CH 301*

Continuation of CH 301. Topics include kinetics, quantum theory, chemical bonding, spectroscopy, and molecular structure. Three lecture hours per week.
*Offered every year. 3 credits.*

### CH 303 Physical Chemistry Laboratory I

*Prerequisite or Co-requisite: CH 301, Prerequisite: CS 120 or demonstrated equivalence*

Laboratory deals with methods of physical measurement of chemical systems and their application to the determination of thermodynamic data. One four hour laboratory per week.
*Offered every year. 2 credits.*

### CH 304 Physical Chemistry Laboratory II

*Prerequisite or Corequisite: CH 302*

Continuation of CH 303; project-oriented laboratory dealing with the study of reaction rates and mechanisms, electrochemistry, and molecular properties. One four hour laboratory per week.
*Offered every 2 years. 2 credits.*

### CH 320 Environmental Chemistry

*Prerequisites: CH 120, CH 121 and CH 111 or CH 201*

Chemistry of the atmosphere, soil, and natural water systems, air and water pollution water treatment, hazardous wastes and pollution control.
*Offered every 2 years. 3 credits.*

### CH 330 Environmental Toxicology

*Prerequisites: CH 120, CH 121, CH 111, BI 101*

Topics include the pharmacological and biochemical properties of toxins and the effects of toxins on human health, including assessment of risk(s).
*Offered every 3 years. 3 credits.*

### CH 340 Advanced Inorganic Chemistry

*Prerequisites: CH 120, CH 121, CH 201 or CH 202 recommended*

This course is a survey of the chemistry of the inorganic elements, focusing on the relationship between electronic structure , physical properties, and reactivity across the periodic table.
*Offered every 2 years. 3 credits.*

### CH 350 Medicinal Chemistry

*Prerequisites: CH 201, CH 202*

A study of how drugs work and the science and technology of modern drug discovery illustrated with case histories. Three lecture hours per week.
*Offered every 3 years. 3 credits.*

## CH/BI 410 Biochemistry I

*Prerequisites: CH 201, CH 202*

The chemistry of proteins, nucleic acids, carbohydrates, and lipids; enzymes, biological oxidations; and correlations in intermediary metabolism. Three lecture hours and three laboratory hours per week.
*Offered every year. 4 credits.*

## CH/BI 411 Biochemistry II

*Prerequisite: CH/BI 410*

The generation and storage of metabolic energy; biosynthesis of macromolecular precursors, DNA, RNA, and protein; and biochemical regulation. Three lecture hours per week.
*Offered every 3 years. 3 credits.*

## CH 415 Nucleic Acids Biochemistry

*Prerequisites: CH 201, CH 202; CH 410 recommended*

Structure and function of nucleic acids in prokaryotes and eukaryotes. Topics include nucleotide metabolism, replication, repair, and recombinant DNA techniques.
*Offered every 3 years. 3 credits.*

## CH 425 Bioorganic Analysis

*Prerequisites CH 201, CH 202 and CH 203*

Separation and identification of components of mixtures of organic and biological compounds using classical qualitative organic techniques and modern biochemical methods. Two lecture hours and six laboratory hours per week.
*Offered every 3 years. 4 credits.*

## CH/BI 453 Radiopharmaceuticals

*Prerequisite: Consent of NMT coordinator*

Fundamental concepts of radiopharmaceutical production including basic radiochemistry.
*Offered every year. 4 credits.*

## CH 455 Special Topics in Chemistry

*Prerequisites: 18 credits in Chemistry and consent of Department*

Exploration of frontier areas of chemistry, including chemical kinetics, quantum chemistry, polymers, spectroscopy, materials science, environmental, bioinorganic and medicinal chemistry.
*Offered every 3 years. 3-4 credits.*

## CH/BI 465 Clinical Nuclear Medicine Technology I

*Prerequisite: Consent of NMT coordinator*

Why a specific test is indicated; which radiopharmaceutical is preferred; and how the basic image appearance and/or numerical data may be altered by pathological states.
*Offered every year. 4 credits.*

## CH/BI 466 Clinical Nuclear Medicine Technology II

*Prerequisite: Consent of NMT coordinator*

Case presentations using formulas, charts, tables, and calculations to arrive at examination parameters such as amount of dose, number of counts, speed of instrument, etc.
*Offered every year. 4 credits.*

## CH 470 Instrumental Analysis

*Prerequisites: CH 120, CH 121, together with CH 210 or CH 301 or two years of analytical laboratory experience*

Advanced level survey of instrumental methods of separation and analysis including spectrophotometry, potentiometry, polarography, and chromatography. Laboratories are project-oriented. Two lecture hours and six laboratory hours per week.
*Offered every 2 years. 4 credits.*

## CH 475 Chemistry Seminar

*Prerequisite: Consent of department*

Contemporary developments in chemistry, review of technical literature in both print and electronic format, preparation and presentation of technical paper.
*Offered every year. 2 credits.*

## CH 480 Chemistry Internship

*Prerequisite: Consent of department*

Project completed at an institution other than WSC by a student with a non-WSC sponsor and WSC liaison.
*Offered every year. 1-6 credits.*

## CH 485 Directed Study in Chemistry

*Prerequisites: 18 credits in Chemistry and Consent of Department*

Designed for the undergraduate who wishes to undertake individualized study in chemistry on topic mutually agreeable to student and instructor.
*Offered every year. 3-4 credits.*

## CH 490 Independent Study in Chemistry

*Prerequisite: Consent of department*

Advanced independent work on a research problem in chemistry mutually agreed to by the student and the instructor.
*Offered every year. 1-6 credits.*

# Communication Sciences and Disorders

## Department of Communication Sciences and Disorders

## Faculty

Linda S. Larrivee, Professor (2000), Department Chair
B.S., M.S., Worcester State College; Ph.D., University of Kansas

Kenneth S. Melnick, Assistant Professor (2004)
B.A., University of Michigan; M.A., University of Cincinnati; Ph.D., Vanderbilt

Susanna E. Meyer, Assistant Professor (1997)
B.A., M.S., Ph.D., University of Pretoria, South Africa

Maryann H. Power, Professor (1979)
B.A., University of Massachusetts; Ed.M., Salem State College; Ed.D., Clark University

Susan V. Rezen, Professor (1980)
B.A., State University of New York, Albany; M.S., Purdue University; Ph.D., Syracuse University

Roger L. Towne, Associate Professor (2004)
B.A., M.A., University of Montana; Ph.D., Southern Illinois University (Carbondale)

James R. Wicka, Associate Professor (1992)
B.A., University of Omaha; M.A., Columbia University; Ed.D., Columbia University

**Clinic Staff:**

Ann T. Veneziano, Clinic Director (1988)
B.S., Boston College; M.S., Syracuse University

Lee A. Cordaro, Clinic Supervisor (2005)
B.S., M.S., Worcester State College

Ruth E. Margulies, Clinic Supervisor (2005)
B.S., Boston University; M.S., Emerson College

Communication Sciences and Disorders majors receive training in the normal processes of speech, language, and hearing and their associated pathologies, and have exposure to evaluation and rehabilitative concepts.

**Requirements for a Major: 39 credits**

| | |
|---|---|
| CD 100 | Introduction to Human Communication and its Disorders |
| CD 103 | Language Science |
| CD 110 | Anatomy and Physiology of Speech and Hearing |
| CD 115 | Normal Development of Speech and Language |
| CD 201 | Hearing Science |
| CD 202 | Speech Science |
| CD 205 | Phonetics |

CD 301 Directed Observations
CD 305 Audiology
CD 310 Language Disorders
CD 320 Speech Disorders
CD 400 Aural Rehabilitation Theory
CD 401 Advanced Directed Observations
CD 410 Clinical Skills
Elective: One credit in Communication Sciences and Disorders

Students will be screened for adequate speech and language patterns and recommendations made for therapy when appropriate.

**Requirements for a Minor:** 18 credits within the department; 15 credits must include:

CD 100 Introduction to Human Communication and its Disorders
CD 103 Language Science
CD 110 Anatomy and Physiology of Speech and Hearing
CD 115 Normal Development of Speech and Language
CD 205 Phonetics

For students taking prerequisites for the Speech-Language Pathology graduate program, two additional courses, CD 201 Hearing Science and CD 202 Speech Science, must be completed. Grades in these minor courses are heavily weighted in consideration for graduate admission.

# Communication Sciences and Disorders Courses (Undergraduate)

### CD 100 Introduction to Human Communication and its Disorders

Nature and causes of organic and functional speech, language and hearing problems, general awareness of diagnostic and therapeutic techniques.
*Offered every year. 3 credits.*

### CD 103 Language Science

Introduction to basic linguistic knowledge including theoretical areas of pragmatics, semantics, syntax, morphology and phonology in a multicultural perspective.
*Offered every year. 3 credits.*

### CD 110 Anatomy and Physiology of Speech and Hearing

Normal anatomy and physiology of the speech and hearing mechanism with emphasis on respiration, phonation, articulation, audition, and neurology.
*Offered every year. 3 credits.*

### CD 115 Normal Development of Speech and Language

An in-depth coverage of the normal acquisition and development of speech and language, including phonology, morphology, syntax, semantics and pragmatics.
*Offered every year. 3 credits.*

### CD 201 Hearing Science

*Prerequisite: CD 110*

Basic concepts/information needed to study audiology and aural rehabilitation: physical acoustics, physiological acoustics, and psycho-acoustics.
*Offered every year. 3 credits.*

### CD 202 Speech Science

*Prerequisites: CD 110, CD 205*

An exploration of the psycho-acoustic aspects of speech with an emphasis on laboratory analysis, including spectrography.
*Offered every year. 3 credits.*

## CD 205 Phonetics

*Prerequisite: CD 103*

The study of English speech sounds, their articulation and acoustic characteristics, and speech transcription using the International Phonetic Alphabet.
*Offered every year. 3 credits.*

## CD 301 Directed Observations

*Prerequisite: Concurrent with CD 310 or CD 320*

Beginning aspects of clinical issues including objectives, rapport, and timing. Therapy/diagnostic sessions will be viewed and highlighted by instructor.
*Offered every year. 1 credit.*

## CD 305 Audiology

*Prerequisite: CD 201*

Introduction to audiometric testing techniques and interpretation as related to ear pathologies.
*Offered every year. 3 credits.*

## CD 310 Language Disorders

*Prerequisites: CD 100, CD 103, CD 110, CD 115, CD 205*

Examination of the processes interfering with normal language acquisition and the disorders which disturb established language skills in children and adults.
*Offered every year. 3 credits.*

## CD 320 Speech Disorders

*Prerequisites: CD 100, CD 110, CD 115, CD 201, CD 202, CD 205,*

Study of the theoretical bases of articulation, voice and fluency disorders. Etiology, characteristics, evaluation and rehabilitation of these disorders.
*Offered every year. 3 credits.*

## CD 400 Aural Rehabilitation Theory

*Prerequisites: CD 201, CD 202, CD 305, CD 310, CD 320*

Study of the theoretical basis of the characteristics, evaluation and treatment of individuals with hearing impairment across the life span.
*Offered every year. 3 credits.*

## CD 401 Advanced Direct Observations

*Prerequisites: CD 301*

Advanced aspects of clinical issues including procedures and material selection. Therapy/diagnostic sessions will be viewed and highlighted by the instructor.
*Offered every year. 1 credit.*

## CD 410 Clinical Skills

*Prerequisites: CD 305, CD 310, CD 320*

Presentation of professional issues; observation and practice in evaluation and treatment of speech-language disorders.
*Offered every year. 3 credits.*

## CD 420 Clinical Audiology Practicum

*Prerequisites: CD 305, majors only, permission of the instructor*

Review of audiometric techniques, discussion of interpretation, and live practicum experiences, with reports, in basic hearing evaluation and screening.
*Offered every year. 3 credits.*

## CD 475 Selected Topics in Communication Sciences and Disorders

*Prerequisites: CD 310, CD 320*

Selection of topics of mutual interest to the student and faculty. Timely topics and issues will be covered.
*Offered every year. 1-3 credits.*

## CD 490 Independent Study in Communication Sciences and Disorders

*Prerequisite: Junior and senior majors only*

In-depth study, research, or field experience in an area of interest in speech-language pathology or audiology under faculty supervision.
*Offered every year. 1-3 credits.*

# Communications
## Department of Communications

## Faculty

Donald F. Bullens, Associate Professor (1986)
B.S. Ed., M.Ed., Worcester State College

Alta Carroll, Associate Professor (1998)
B.A., Texas A & M University; M.S., Columbia University; Ph.D., Purdue University

Carlos Fontes, Associate Professor (1996), Department Chair
B.A., Escola Superior de Meios de Communicacao Social, Lisbon; M.A., Ph.D., University of Massachusetts

Julie D. Frechette, Associate Professor (1999)
B.A., University of New Hampshire; M.A., Ph.D., University of Massachusetts

Suzanne Gainer, Assistant Professor (2001)
B.A., St. Vincent College; M.F.A., Rhode Island School of Design

Emanuel E. Nneji, Associate Professor (2005)
B.A., University of Nigeria; M.S., University of Lagos; Ph.D., University of South Carolina

Barbara Zang, Associate Professor (2002)
B.S., University of Missouri; M.A., University of Toledo; M.A., University of Missouri; Ph.D., Indiana University

The Department of Communications at Worcester State College promotes the critical understanding of communication in a culturally diverse and technological world. Grounded on methods of inquiry, the program engages students in the theory and practice of mass communications and intercultural communication. Our goal is to educate students to assess the role of communication in society, and to be proficient communicators and competent users of current technologies. Representing diverse areas of expertise, the faculty emphasizes contemporary issues and media ethics from a global perspective.

Courses focused on media literacy, criticism, production and special topics, prepare students for careers in the field and for further study at the graduate level. Facilities include computer labs, a state-of-the-art television studio, editing suites, electronic field production video equipment and photographic dark rooms.

In addition to course work, students in their junior and senior year who have a GPA of 2.7 or higher are encouraged to apply for media internships with companies and nonprofit organizations that have a long-standing relationship with the Department. Majors have the opportunity to become members of WSTS-TV 11 and WSCW radio station. The Department sponsors internships and photographic exhibits; in addition, many of our students participate in off-campus communications-related competitions and activities.

**Requirements for a Major in Communications:** 36 credits including

| | |
|---|---|
| CM 100 | Introduction to Mass Communications |
| CM 110 | Public Speaking **or** CM 199 Interpersonal Communications in Media |
| CM 363 | Visual Literacy |
| CM 384 | Media Criticism |

and 24 additional credits in Communications

**Requirements for a Major in Communications, Concentration in Film and Electronic Media:**

| | |
|---|---|
| CM 100 | Introduction to Mass Communications |
| CM 110 | Public Speaking **or** CM 199 Interpersonal Communications in Media |
| CM 241 | Understanding Movies |
| CM 363 | Visual Literacy |
| CM 384 | Media Criticism |

and 21 additional credits from:

| | |
|---|---|
| CM 150 | Introduction to Photography |
| CM 160 | Introduction to Digital Imaging |
| CM 231 | Photography II |
| CM 247 | Introduction to Multimedia |
| CM 259 | Television Production I |
| CM 260 | Introduction to Video |
| CM 360 | Television Production II |
| CM 366 | Scriptwriting |
| CM 396 | Video Editing |
| CM 404 | Independent Study in Media |
| CM 410 | Special Topics in Film/Electronic Media Only |
| CM 435 | Media Internship |

**Requirements for a Major in Communications, Concentration in Public Communication:**

**Core**

CM 100, CM 110, CM 363, CM 384

**Tier I (required)**

| | |
|---|---|
| CM 105 | Media Writing |
| CM 180 | Introduction to Advertising |
| CM 240 | PR Principles & Practices |

**Tier II (at least one)**

| | |
|---|---|
| CM 213 | Gender & Media |
| CM 350 | Intercultural Communication |
| CM 390 | Alternative Communication |

**Tier III (at least four)**

| | |
|---|---|
| CM 245 | Media for Non-Profits |
| CM 247 | Introduction to Multimedia |
| CM 259 | Television Production I |
| CM 260 | Introduction to Video |
| CM 360 | Television Production II |
| CM 370 | Creative Advertising Communication |
| CM/CS 374 | Advanced Multimedia |
| CM 396 | Video Editing |
| CM 404 | Independent Study *(related to concentration)* |
| CM 435 | Media Internship *(related to concentration)* |

**Requirements for a Minor:** 18 credits including

| | |
|---|---|
| CM 100 | Introduction to Mass Communications |
| CM 110 | Public Speaking **or** CM 199 Interpersonal Communication in Media |

**Worcester State College/Clark University COPACE BS/MSPC Degree Program**
Through a COPACE cooperative program between Worcester State College and Clark University, qualified Communications Majors and Minors during their senior year can work towards a Master of Science in Professional Communication, while concurrently completing their Baccalaureate degree.

# Communications Courses

### CM 100 Introduction to Mass Communications

An integrated examination of the history, theory, structure, process, and effects of each of the mass media.
*Offered every year. 3 credits.*

### CM 101 Library Skills for Research

The course covers the basics of library research: search strategies and how to use both print and automated research tools.
*Offered every 3 years. 1 credit.*

### CM 103 Survey of Radio and Television

Perspectives on the development of radio and television technologies, programming, regulation, and economic support, and their impact.
*Offered every 2 years. 3 credits.*

### CM 105 Media Writing

*Prerequisite: CM 100*

An introduction to various types of mass media writing, from print and broadcast to public relations, advertising and online media.
*Offered every year. 3 credits.*

### CM 106 Communication and the Internet

Focuses on the social and educational implications of the Internet and the application of its various search tools as a means to communication.
*Offered every 2 years. 3 credits.*

### CM 110 Public Speaking

Essentials of speech production and speech writing for large and small groups. Classroom practice in delivering various types of speeches.
*Offered every year. 3 credits.*

### CM 150 Photography I

Covers the basic theory and practice of 35mm B/W photography, including camera handling, film processing, light meters, printing and picture content.
*Offered every year. 3 credits.*

### CM 160 Introduction to Digital Imaging

This course introduces students to the procedures, techniques and concepts of basic digital imaging. In the course students learn to use the computer as a tool for visual image making.
*Offered every year. 3 credits.*

### CM 180 Introduction to Advertising

An overview of the advertising including the historical and current roles of advertising in our economy, basic advertising concepts and methods, and social and cultural effects.
*Offered every 2 years. 3 credits.*

### CM 199 Interpersonal Communications in Media

Study of the communications process as it relates to the production of material in various media, including video, audio, film.
*Offered every 2 years. 3 credits.*

### CM/WO 213 Gender and Media

*Prerequisite: CM 100*

This course will explore how difference is socially constructed along gender lines and will explore the intersections of gender, identity, power and media representation.
*Offered every 2 years. 3 credits*

### CM 231 Photography II

*Prerequisite: CM 150*

Expands basic skills in camera craft, film and print processing and presentation. Instruction and practice in the Zone System, theory and practice of advanced exposure and film development control. Emphasis on photographic composition and efficiency in designing purposeful photographic statements.
*Offered every year. 3 credits.*

### CM 240 Public Relations Principles and Practices

*Prerequisite: CM 100*

An overview of public relations history and trends with a focus on influencing opinion through acceptable performance and two-way communication.
*Offered every 2 years. 3 credits.*

### CM 241 Understanding Movies

An introduction to the aesthetics and critical theories of film as an artistic medium of communication through critical observation of classic and contemporary movies.
*Offered every year. 3 credits.*

### CM 245 Media for Non-Profits

*Prerequisites: CM 100, CM 105*

This course covers the writing, research, planning and problem solving necessary to provide media service for a non-profit client.
*Offered every year. 3 credits.*

### CM/CS 247 Introduction to Multimedia

*Prerequisite: Introduction to computers or experience*

Use of computers to create digitized video, images, sound, animation, and text for CD-ROM, the internet, television and other productions.
*Offered every 2 years. 3 credits.*

### CM/MU 250 Music of the Cinema: Spectacle, Splendor, and Spielberg

An introduction to the role, impact, and importance of music in motion pictures from silent movies through contemporary film.
*Offered every 2 years. 3 credits.*

### CM 259 Television Production I

Basics of studio production including visualization and sequencing of short scripts, sound, graphics, lighting, and technical direction.
*Offered every year. 3 credits.*

### CM 260 Introduction to Video

A beginning course in video program production, using lightweight and portable equipment.
*Offered every year. 3 credits.*

### CM 301 Communication Theory

*Prerequisite: CM 100*

Examines the nature and origins of symbol systems, the make up of audiences, the effects of mass media, and concomitant research.
*Offered every 3 years. 3 credits.*

### CM 345 Media and Democracy

*Prerequisite: CM 100*

This course aims to develop an understanding of democracy's requirements and the role of the media in relation to democracy.
*Offered every 2 years. 3 credits.*

### CM/WO 350 Intercultural Communication

Introductory communication theory and practice across cultural groups defined by race, ethnicity, gender, religion, age, nationality, politics and economics.
*Offered every 2 years. 3 credits.*

### CM 360 Television Production II

*Prerequisites: CM 259 or CM 260*

The student will gain experience in the areas of electronic videotape editing, technology of television engineering, creative video, remote production and other advanced techniques. Primary emphasis is on the production of programs utilizing advanced techniques.
*Offered every year. 3 credits.*

### CM 363 Visual Literacy

*Prerequisite: CM 100*

An introduction to principles of visual media literacy and their application in media production and perception.
*Offered every year. 3 credits.*

### CM 366 Scriptwriting

*Prerequisite: CM 100*

Creating scripted material for the electronic media. All types, styles, and formats will be covered.
*Offered every 2 years. 3 credits.*

### CM 370 Creative Advertising Communication

*Prerequisite: CM 100*

Applied skills in advertising including the creation of advertisements in different media, advertising strategies, media schedules and campaign plans.
*Offered every 2 years. 3 credits.*

### CM/CS 374 Advanced Multimedia

*Prerequisite: CM/CS 247 or equivalent*

Project-based approach using computers to design multimedia productions to integrate image, sound, and text. Emphasis on creative conceptualization, interface design, and project management.
*Offered every 2 years. 3 credits.*

### CM 384 Media Criticism

*Prerequisite: CM 100*

Evaluation and analysis of film, television, theatre, and radio performances, development of intelligent, ethical standards of judgment.
*Offered every year. 3 credits.*

### CM/WO 390 Alternative Communication

*Prerequisite: CM103*

This course introduces students to the theory and practice of alternative communication and its relationship with culture and politics.
*Offered every 3 years. 3 credits.*

### CM 396 Video Editing

*Prerequisite: CM 259 or CM 260*

The principles and procedures of editing one-half-inch and three-quarter-inch videotape using manual and electronic techniques and equipment. Students will produce short, edited programs.
*Offered every 2 years. 3 credits.*

### CM 404 Independent Study in Media

*Prerequisite: CM 100*

Permits advanced students to investigate topic of special interest through research or production of a project. Periodic consultations with advisor.
*Offered every year. 1-6 credits.*

### CM 410 Special Topics

*Prerequisite: Nine credits in Communications*

The in-depth examination of an area of interest in film, television, theatre, or radio. One-time only subjects, not covered in other departmental offerings.
*Offered every 3 years. 3 credits.*

### CM 435 Media Internship

*Prerequisite: Two relevant communications courses and consent of department provides opportunity to advanced students to increase experience through internship with sponsoring community organization, institution, or business under appropriate supervision.*
*Offered every year. 3-12 credits.*

# Computer Science
## Department of Computer Science

## Faculty

Elena Braynova, Assistant Professor (2003)
M.S., SUNY, Buffalo, NY; M.S., Ph.D., Moscow St. University, Russia

Dale Fish, Instructor (2000)
B.S., M.S., University of Connecticut

Aparna Mahadev, Professor (1999)
B.Sc., University of Madras, India; M. Sc., University of Madras, India; M.S., Indian Institute of Technology, India; Ph.D University of Waterloo, Canada

Hemant Pendharkar, Assistant Professor (2001)
B.S., M.S., University of Bombay, India; M.S., Ph.D., University of New Hampshire

Andre Varpahovsky, Instructor (2005)
M.S.E.E., M.S., Moscow Power Institute; Post Graduate Diploma, Institute of Mathematical Machines

Karl R. Wurst, Associate Professor (1999), Department Chair
B.S., Central Connecticut State University; M.S., Ph.D., University of Connecticut

The Computer Science program offers education in the field for those who wish to pursue careers as software engineers, software developers, programmers, database designers and in other related areas.

It is highly recommended that entering students have four years of high school mathematics including the equivalent of pre-calculus. The following ancillary and distribution requirements cannot be taken on a pass/fail basis.

**Ancillary Requirements for the Computer Science Major: (30 credits)**

| | |
|---|---|
| MA 200 & MA 201 | Calculus I and II |
| MA 220 & MA 290 | Discrete Mathematics I and II |
| MA 302 | Probability and Statistics |

12 Credits in Lab Science, including a two-semester sequence.
All courses must be chosen from department-approved list of courses.

**Additionally, students majoring in Computer Science must complete the following courses towards distribution requirements:**

| | |
|---|---|
| CM 110 | Public Speaking |
| EN 252 | Technical Writing |
| UR 230 | Technology, Public Policy & Urban Society |

**Requirements for a Major in Computer Science:** 45 Credits

**Required Courses:** 33 Credits

| | |
|---|---|
| CS 140 | Computer Science I |
| CS 145 | Computer Science II |
| CS 242 | Data Structures |
| CS 253 | Digital Computer Organization and Assembly Language |
| CS 282 | UNIX Systems Programming |
| CS 352 | Digital Computer Architecture |
| CS 371 | Computability Theory |
| CS 373 | Operating Systems |
| CS 401 | Object Oriented Software Development |
| CS 442 | Algorithm Analysis |

**Elective Courses:** 12 Credits in Computer Science courses at the 300 level or above. Up to 3 credits of internship (CS 498) and up to 3 credits of Independent Study (CS 499) may be used to satisfy the major elective requirements.

**Requirements for a Minor in Computer Science: (Minimum of 20 credits)**

| | |
|---|---|
| CS 140 | Computer Science I |
| CS 145 | Computer Science II |
| CS 242 | Data Structures |
| CS 282 | UNIX Systems Programming |
| CS 372 | Principles of Programming Languages |

Plus one more Computer Science course above 200 level

**Requirements for a Minor in Web Development: (19 Credits)**

| | |
|---|---|
| CS 140 | Computer Science I |
| CS 161 | Basics of Web Design |
| CS 261 | Advanced Web Design Using Scripting Languages |
| CS 265 | Database Applications |
| CS 365 | Client Server Computing Using the Internet |

Plus one more elective in consultation with the department

**Requirements for a Minor in Information Technology: (18+ credits)**

**Required Courses:**

| | |
|---|---|
| CS 130 | Fundamentals of Information Technology |
| CS 235 | Data Communication and Networking for Non-Majors |
| CS 257 | Information Storage and Retrieval |

**Courses may be taken from the following to complete the remaining credits:**

| | |
|---|---|
| BA 351 | Managing e-Business |
| BT/NS 378 | Bioinformatics |
| EN 281 | Web Authoring and Publication |
| UR 230 | Technology, Public Policy and Urban Society |

**Note:** All computer science courses must be taken in sequence, i.e., CS 100 level courses must be completed before CS 200 level courses are begun. In turn, all lower division course requirements must be completed before upper division courses are begun. **Due to the changing nature of the program, students are strongly advised to meet with their advisor before registering for classes.**

# Computer Science Courses

## CS 120 Microcomputer Applications in Business I

Learning state-of-the-art application packages including but not limited to word processing, spreadsheets and presentation software.
*Offered every year. 3 credits.*

## CS 121 Microcomputer Applications in Business II

*Prerequisite: CS 120*

Advanced features of application packages including but not limited to spreadsheets, database management systems, graphics and integration.
*Offered every year. 3 credits.*

## CS 130 Fundamentals of Information Technology

Theory and concepts behind information technology; algorithmic thinking and common logic styles prevalent in today's computer systems and applications.
*Offered every year. 3 credits.*

## CS 140 Computer Science I

*Prerequisite: Familiarity with basic computer operations or CS 120*

Introduction to fundamental structures and concepts of Computer Science including object-oriented programming; three lectures and one two-hour laboratory.
*Offered every year. 4 credits.*

## CS 145 Computer Science II

*Prerequisites: CS 140*

Continuation of material from CS 140; file processing, GUIs, advanced concepts and data structures; three lectures and one two-hour laboratory.
*Offered every year. 4 credits.*

## CS 161 Basics of Web Design

*Prerequisites: CS 140*

Introduces concepts needed for creation, design and implementation of effective web pages. Latest versions of mark-up language(s) will be used.
*Offered every year. 3 credits.*

## CS 235 Data Communication and Networking for Non-Majors

*Prerequisites: CS 130*

This course covers the basic of computer networking and communications. It emphasizes both the Internet and business computer networking.
*Offered every year. 3 credits.*

## CS 240 Application Development using Visual BASIC

*Prerequisites: CS 140*

Using the Visual Programming System to create robust and useful applications that make use of the graphical user interface.
*Offered every 2 years. 3 credits.*

## CS 242 Data Structures

*Prerequisites: CS 145, MA 290*

Introduces time complexity and covers fundamental data structures: lists, stacks, queues, search trees, dictionaries, priority queues, B-trees and inverted files.
*Offered every year. 3 credits.*

## CS 253 Digital Computer Organization and Assembly Language

*Prerequisites: CS 145, EN 252, MA 290*

Design and analysis of combinational and sequential circuits; Assembly language programming, Digital computer organization. Three lectures and one two hour laboratory.
*Offered every year. 4 credits.*

## CS 257 Information Storage and Retrieval

*Prerequisites: CS 130*

This course provides a sound, real world understanding of Data Storage and retrieval as it relates to business and industry.
*Offered every year. 3 credits.*

### CS 261 Advanced Web Design Using Scripting Languages

*Prerequisites: CS 161*

This course covers scripting languages and teaches how to make the web pages interactive by embedding executable scripts into them.
*Offered every 2 years. 3 credits.*

### CS 265 Database Applications

*Prerequisites: CS 140*

This course introduces basic database concepts and teaches how to create a database; use SQL; and create database applications.
*Offered every 2 years. 3 credits.*

### CS 282 UNIX Systems Programming

*Prerequisites: CS 242*

Problem solving and software design using C; introduction to UNIX programming utilities and text manipulation; low-level system programming in UNIX and C.
*Offered every year. 3 credits.*

### CS 297 Selected Topics in Computer Science

Topics of mutual interest to students and faculty.
*Offered every 3 years.1-4 credits.*

### CS 335 Networking and Web Security

*Prerequisites: CS 140, CS 265, or CS 282*

This course covers web and security problems, solutions, and techniques. Encryption, worms, viruses, firewall, safer practices, etc. are covered.
*Offered every 2 years. 3 credits.*

### CS 341 Advanced Assembly Language Programming

*Prerequisites: CS 253*

Builds on the assembler knowledge from CS 253. Assembly Language topics covered are MACROS, subprograms, ISRs, debugging, and special purpose instructions.
*Offered every 2 years. 3 credits.*

### CS 345 Object Oriented Programming with C++

*Prerequisites: CS 282*

Introduction to the fundamentals of C++; Topics include objects/classes, single/multiple inheritance, friend functions, operator overloading, polymorphism and streams.
*Offered every 2 years. 3 credits.*

### CS 352 Digital Computer Architecture

*Prerequisites: CS 253*

A study of the internal structure of a typical digital computer from both a logical and a hardware viewpoint; memory devices, arithmetic, and control circuits including LSI and MSI components.
*Offered every year. 3 credits.*

### CS 365 Client Server Computing Using the Internet

*Prerequisites: CS 242 or CS 265*

This course covers what client/server is and covers various client/server models and explores the Internet from a client/server perspective.
*Offered every 2 years. 3 credits.*

### CS 371 Computability Theory

*Prerequisites: CS 145, MA 201, MA 290, EN 252*

This course provides an introduction to theoretical computer science. Covers the fundamentals of automata theory, formal languages, and computability theory.
*Offered every year. 3 credits.*

### CS 372 Principles of Programming Languages

*Prerequisites: CS 282*

Topics include comparison of syntax and semantic descriptions, data types and control, operations and sequencing, ease of use, applicability, generality, non-procedurality, and efficiency.
*Offered every 2 years. 3 credits.*

### CS 373 Operating Systems

*Prerequisites: CS 352, CS282, EN252*

Hardware and software as an integrated system; development of system software for process management, resource allocation, memory management and I/O processing.
*Offered every year. 3 credits.*

## CS 375 Software Analysis and Design

*Prerequisites: CS 282, CM 110, EN 252*

This course deals with software as an engineered product that requires planning, analysis, design, implementation, testing and maintenance.
*Offered every 2 years. 3 credits.*

## CS 380 System Programming

*Prerequisites: CS 282*

The design and implementation of assemblers, linkers, loaders, editors, and high-level translation software. Algorithms solving specific problems of a system program are investigated.
*Offered every 2 years. 3 credits.*

## CS 400 Database Design

*Prerequisites: CS 242, EN 252, CM 110*

Introduces database models with emphasis on relational model; ER diagrams, relational calculus, relational algebra and SQL, normalization, transaction processing and recovery.
*Offered every other year. 3 credits.*

## CS 401 Object Oriented Software Development

*Prerequisites: CS 242, EN 252, CM 110*

This course introduces object-oriented software development concepts as a new way of thinking about problems using models organized around real-world concepts.
*Offered every year. 3 credits.*

## CS 403 Compiler Design

*Prerequisites: CS 371, CS 282*

This course covers basic concepts involved in the design of compilers such as language definition, lexical, syntactic and semantic analysis, and code generation.
*Offered every 3 years. 3 credits.*

## CS 405 Data Communications and Networking

*Prerequisite: CS 373, EN 252, CM 110*

Data transmission, encoding, interfacing, synchronization, data-link control, multiplexing, networking, circuit switching, packet switching, radio and satellite, local area networks, network access protocols.
*Offered every year. 3 credits.*

## CS 442 Algorithm Analysis

*Prerequisite: CS 282, CS 371, MA 302*

Various complexity classes; algorithmic strategies, graph algorithms, pattern matching, cryptographic and geographic algorithms; NP-complete problems.
*Offered every year. 3 credits.*

## CS 471 Artificial Intelligence

*Prerequisites: CS 371,CS 242, EN 252*

Introduction to central issues of constructing intelligence systems. Examines historical and future trends of AI research.
*Offered every 2 years. 3 credits.*

## CS 497 Selected Topics in Computer Science

*Prerequisite: CS 282*

Selection of topics of mutual interest to students and faculty.
*Offered every 3 years. 1-6 credits.*

## CS 498 Internship

*Prerequisites: Approval by vote of Computer Science faculty; 21 credit hours in Computer Science courses including CS 282.*

Working in and for an organization where skills can be tested in real situations in order to gain experience, increase knowledge in various functional areas, and establish important contacts with an organization.
*Offered every year. 3 credits.*

## CS 499 Independent Study

*Prerequisites: 18 credit hours in Computer Science including CS 282 and approval by vote of Computer Science faculty.*

An opportunity for advanced students to examine topics not normally taught in other computer science courses. Geared to interests of both the student and the instructor.
*Offered every year. 1-6 credits.*

# Criminal Justice
## Joint Degree Program with
## Westfield State College

## Faculty

Robert Brooks, Assistant Professor (2004)
B.M., Wayne State University; M.A., Antioch; J.D., University of Detroit Law School; Ph.D., American University

Charles Brownlee, Assistant Professor (2005)
B.S., California State University Los Angeles; J.D., University of California at Berkeley; A.B.D., Northeastern University

John J. Jones, Associate Professor (1978), Program Chair
B.S., University of Maine; M.S., Youngstown State University

Penny Martin, Assistant Professor (2003)
B.S., Weber State College, Utah; M.A., Humboldt State University; Ph.D., University of Miami

The Bachelor of Science degree in Criminal Justice is a 120 credit-hour program. It is an interdisciplinary major, predicated on a common core of the humanities, social sciences, mathematics, and physical sciences. The goal of the program is to develop in students an increased analytical awareness of the role of law enforcement agencies, courts, and correctional institutions in the criminal justice system. The curriculum includes course work to provide students with awareness of recent advances in human dynamics, civil rights legislation and information technology.

The course of study consists of an extensive overview of the criminal justice system and an intensive examination of each of the major components of the system. The program is designed to serve students who may elect to enter the criminal justice profession immediately upon graduation, students of the liberal arts without professional interest in criminal justice, and students who desire to pursue graduate work. Criminal Justice majors are able to apply for an internship in a criminal justice agency during their senior year.

The program at Worcester State College is offered in collaboration with Westfield State College whose Criminal Justice Program is nationally recognized. Worcester and Westfield State Colleges have developed this joint program so that students take all course work on the Worcester State College campus. Westfield Criminal Justice Department faculty will teach all criminal justice courses, advise majors and oversee the criminal justice curriculum. The diploma will be issued jointly by Worcester State and Westfield State at the Worcester campus.

For further information about this major, please call the Criminal Justice Department at 508-929-8940.

To request an application form, please call the Admissions Office at 508-929-8758.

**Requirements for a Major in Criminal Justice:** 39 credits in criminal justice, of which 21 must be completed at Worcester State College.

Major Core: 18 credits

- CJ 101 Introduction to Criminal Justice
- CJ 121 Theories of Crime
- CJ 201 Law Enforcement and Society
- CJ 202 Introduction to Corrections
- CJ 205 American Judicial Systems
- CJ 331 Research Methods in Criminal Justice

Criminal Justice Electives: 21 credits

# Criminal Justice Courses

## CJ 101 Introduction to Criminal Justice

A survey of the American Criminal Justice System as a socio-political institution. The police, criminal courts, and correctional and rehabilitative endeavors will be analyzed within the framework of empirical research from the perspectives of the social sciences. Required of all Freshmen in the Criminal Justice major.
*Offered every year. 3 Credits.*

## CJ 121 Theories of Crime

*Prerequisite: CJ 101*

An exploration of prominent theories of crime causation, ranging from biological, psychological, sociological, and cultural explanations. Theories are compared and contrasted and implications are discussed as foundations for criminal justice system policy.
*3 Credits.*

## CJ 201 Law Enforcement and Society

*Prerequisites: CJ 101 or its equivalent*

The structure and function of law enforcement agencies in contemporary society will be analyzed in their sociological context. Particular emphasis will be placed on the role of the police within the framework of the Criminal Justice System.
*Offered every year. 3 Credits.*

## CJ 202 Introduction to Corrections

*Prerequisite: CJ 101 or its equivalent.*

An in-depth examination of the American Correctional System. Traditional punitive measures will be analyzed in relation to current reintegration alternatives.
*Offered every year. 3 credits.*

## CJ 205 American Judicial System

*Prerequisite: CJ 101 or its equivalent.*

An examination of the development of law and the American legal system, including the problems related to the meaning and uses of law; the organizational hierarchy of the courts; and the role of the courts in the criminal justice system.
*Offered every year. 3 credits.*

## CJ 301 Juvenile Procedure

*Prerequisites: CJ 101, CJ 201, CJ 202, CJ 205, or their equivalent.*

An examination of the underlying philosophy of juvenile justice and procedures used to process a juvenile alleged to be delinquent through the juvenile justice system. The course will focus on the differences between juvenile procedure and adult criminal procedure by examining recent court decisions and statutory law pertaining to juveniles.
*3 credits.*

## CJ 302 Criminal Law

*Prerequisite: CJ 101, CJ 201, CJ 202, CJ 205, or their equivalent.*

The function of criminal law and its relationship to various criminal offenses, including crimes against persons and crimes against property.
*3 credits.*

## CJ 303 Patterns of Criminality

*Prerequisites: CJ 101, CJ 201, CJ 202, CJ 205, or their equivalent.*

The U. S. Department of Justice Index Crimes will be studied along with other crimes; which will be selected on the basis of their contemporary administrative significance and their effect on the criminal justice system in particular.
*3 credits.*

## CJ 304 Prevention and Control

*Prerequisites: CJ 101, CJ 201, CJ 202, CJ 205, or their equivalent.*

An in-depth examination of the criminal justice system and the efforts it has exerted in an attempt to prevent and control criminal behavior. Course will focus on the traditional methods including probation and parole as well as recent trends in crime control and prevention: the utilization of community based treatment programs and attempts by many criminal justice agencies to avoid the processing of individuals through the system.
*3 credits.*

## CJ 305 Principles of Evidence and Proof

*Prerequisites: CJ 101, CJ 201, CJ 202, CJ 205, or their equivalent.*

The study of the different types of evidence, relevance, the hearsay rule and its exceptions, impeachment and cross-examination and privileged communications.
*3 credits.*

## CJ 306 Contemporary Problems in Corrections

*Prerequisites: CJ 101, CJ 201, CJ 202, CJ 205, or their equivalent.*

An intensive analysis of selected problems in institutional and community corrections.
*3 credits.*

## CJ 307 Contemporary Problems in Law Enforcement

*Prerequisites: CJ 101, CJ 201, CJ 202, CJ 205, or their equivalent.*

An intensive analysis of selected problems in American law enforcement and police-community relations. A major research paper is required.
*3 credits.*

## CJ 308 Rights of the Convicted

*Prerequisites: CJ 101, CJ 201, CJ 202, CJ 205, or their equivalent.*

An examination of the legal rights of the individual who has been convicted of a crime. This lecture course will focus specifically on both federal and state laws and court decisions dealing with the legal rights of probationers, confined prisoners, and parolees in the American criminal justice system.
*3 credits.*

## CJ 309 Principles of Criminal Investigation

*Prerequisites: CJ 101, CJ 201, CJ 202, CJ 205, or their equivalent.*

The science of investigation of crimes, laboratory techniques, interpretation of data, and elements of specific crimes.
*3 credits.*

## CJ 310 Organized and White Collar Crime

*Prerequisites: CJ 101, CJ 201, CJ 202, CJ 205, or their equivalent.*

The methods through which organized crime influences and, in many instances, controls entire communities. Traditional types of crime heavily influenced by organized crime, such as loan sharking and gambling, will be analyzed in an effort to demonstrate the basis of power and wealth of organized crime in the United States.
*3 credits.*

## CJ 311 Victimology

*Prerequisites: CJ 101, CJ 201, CJ 202, CJ 205, or their equivalent.*

Criminal-victim relationships, with emphasis on victim-precipitated crimes and compensation to the victims. Consideration is given to: concept and significance of victimology; time, space, sex, age, and occupational factors in criminal-victim relationships; victims of murder, rape, other violent crimes and property crimes; victim typology; the public as victim; restitution and compensation to victims.
*3 credits.*

## CJ 312 Women and the Law

*Prerequisites: CJ 101, CJ 201, CJ 202, CJ 205, or their equivalent.*

An examination of the female and her involvement with the legal processes in the United States. Attention will be focused on the female as the offender and as the victim. Analysis of the various theoretical approaches to understanding the female offender will be presented in addition to an exploration of the recent literature on the female and the criminal justice system.
*3 credits.*

## CJ 313 Quantitative Methods in Criminal Justice

*Prerequisites: CJ 331 or its equivalent.*

Examines the relationship and application of statistical techniques to theory building and concept construction. Gives an overview of statistical methods and their appropriateness for research in criminal justice. In addition, various computer-oriented analytical tools and data processing systems available to the criminal justice practitioner will be surveyed.
*3 credits.*

## CJ 314 Seminar on Offender Rehabilitation

*Prerequisites: CJ 101, CJ 201, CJ 202, CJ 205, or their equivalent.*

The "nothing works" doctrine generated by the controversial Martinson Report has resulted in considerable confusion regarding the effectiveness of corrections programs designed to elicit specific behavioral changes on the part of the correctional client. This course will thoroughly examine the debate surrounding the "nothing works" doctrine and present those methods of rehabilitation that have proven effective in the treatment of offenders. Probation, parole and programs for the incarcerated offender will be the primary focus of this course.
*3 credits.*

## CJ 315 Stress and the Criminal Justice System

*Prerequisites: CJ 101, CJ 201, CJ 202, CJ 205, or their equivalent.*

An intensive examination of the interpersonal stresses indigenous to Criminal Justice practitioners. Stress management within Criminal Justice organizations will be considered in terms of the administrative and functional problems encountered. Special attention will be given to the criminal justice environment which deals with social service and control on a twenty-four hour basis.
*3 credits.*

## CJ 316 Civil Liabilities of Criminal Justice Professionals

*Prerequisites: CJ 101, CJ 201, CJ 202, CJ 205, or their equivalent.*

The civil liability for harm inflicted on another. Topics to be considered will include: intentional torts such as assault, battery, and false imprisonment; negligence; torts of strict liability; libel, slander and defamation; liability of owners and occupiers of land; and the liability of state and federal employees for harm caused in their respective professional capacities.
*3 credits.*

## CJ 317 Evolution of American Law Enforcement

*Prerequisites: CJ 101, CJ 201, CJ 202, CJ 205, or their equivalent.*

A critical analysis of the contemporary American law enforcement establishment in relation to the evolutionary forces that have contributed to its development. Excepting modern technology, the law enforcement function tends to run in predictable cycles. Traditional in origin, these cyclical phenomena may be observed in the patters of older societies. Reflections of the past are deemed vital to a more objective and well-rounded perception of current issues.
*3 credits.*

## CJ 319 Economic Crime

*Prerequisites: CJ 101, CJ 201, CJ 202, CJ 205, or their equivalent.*

The manner in which professionals in business are able to manipulate and control computer systems and engage in various types of while collar crime will be examined. Emphasis will be placed on consumer and computer fraud, embezzlement, and particular attention will be focused on corporate crime and on the criminal justice system's attempts to identify, prevent, and control it.
*3 credits.*

## CJ 320 Criminal Procedure: Fourth Amendment Rights of the Accused

*Prerequisites: CJ 205, or its equivalent; or permission of the instructor.*

A study of due process, the exclusionary rule, and the legal problems associated with arrests, searches, and seizures.
*3 credits.*

## CJ 321 Criminal Procedure: Fifth and Sixth Amendment

*Prerequisite: CJ 205, or its equivalent; or permission of the instructor.*

A study of the legal problems associated with interrogations, confessions, entrapment, lineups and wiretapping and electronic surveillance.
*3 credits.*

## CJ 322 Youth Gangs

*Prerequisite: Junior standing*

This course will offer an in-depth study of youth gangs in the United States. Topics to be examined include various theories of gang formation, group dynamics, and individual factors associated with gang membership. Attention will also be given to the different types of gangs that exist. Given these dynamics, the final portion of the course will focus on prevention and intervention efforts aimed at reducing gang behavior.
*3 Credits.*

## CJ 323 Religion and Crime in Contemporary America

This course will serve as an introduction to issues related to religion and the criminal justice system. Topics will include the religious origins of the legal and correctional systems, religion and contemporary law, religion in prison and corrections, hate crimes and terrorism.
*3 Credits.*

## CJ 324 Restorative Community Justice

*Prerequisite: Junior standing*

Restorative Community Justice is based on a new vision of criminal justice that stresses offender reintegration through offender accountability. Rather than simply a legal violation, crime is viewed as a breach in the relationship between the offender and the victim, and also the offender and the community. To the greatest degree possible, resolution should rest in the hands of those most directly involved, with the state mediating the conflict. This course will explore the philosophy of restorative justice, and current practices of victim-offender mediation, where the offender is required to directly confront the person(s) harmed, and the victim is given a real voice. It will examine how offenses can be resolved in ways that are positive and constructive for victims, communities, and also for offenders. The student will develop an understanding of the basic tenets of restorative justice, and also knowledge of how this concept is being applied in criminal justice practices in the U.S. and internationally.
*3 Credits.*

## CJ 325 Capital Punishment

This course focuses on capital punishment law, particularly United States Supreme Court decisions addressing constitutional issues relevant to the death penalty. Students also will explore empirical, penological, political, and moral issues related to the death penalty and its administration.
*3 Credits.*

## CJ 326 Planned Change in Criminal Justice

*Prerequisite: Junior standing*

This course is designed to acquaint students with general theories of planned change at the individual, organizational, and community levels. Special attention will be given to the need for employee involvement and collaboration in working toward organizational goals, with reference to concepts such as reinventing government and total quality management. The emphasis will be on applied theory. Students will be expected to develop their own ideas for change in the fields of policing, courts, or corrections. They would then be required to consider the resistances that would likely arise as their changes are introduced, and how they should best be dealt with, considering planned change theories from the course.
*3 Credits.*

## CJ 327 Race, Ethnicity, and Criminal Justice

*Prerequisites: CJ205*

An examination of the issues of race and ethnicity which continue to affect all aspects of criminal justice in America. Whether as offenders, victims, or as persons working (or seeking to work) within the system, African Americans, Hispanics, and other minorities are treated differently than non-minorities. This course explores the core concepts of race and ethnicity as they have developed in our culture, and examines the evidence for and against various forms of racism and discrimination in key institutions of the criminal justice system. The nature and status of constitutional, statutory, and other remedies are also explored.
*3 Credits.*

## CJ 328 Computer Application in Crime Analysis

This course is designed to examine developments in information systems and their applications in the crime analysis environment. Particular attention will be given to management and analysis of crime-related data as well as an assessment of current and future applications in crime analysis. Previous computer experience is not required.
*3 Credits.*

## CJ 329 Crime and the Media

The course will deal with issues related to the mass media and crime in society. The increasing importance of the mass media in shaping peoples perception of and attitudes toward the criminal justice system will be focused on. Other topics will include the media as a cause and cure for crime, biases in the media coverage, the effects of the media on criminal proceedings and crime on television and films.
*3 Credits.*

## CJ 330 Criminal Justice Administration

*Prerequisites: CJ 101, CJ 201, CJ 202, CJ 205, or their equivalent.*

An examination of organizational theory and its applications within criminal justice agencies. Consideration of the principles of organization and methods adopted by progressive agencies to insure effective criminal justice service to the community will be reviewed.
*3 credits.*

## CJ 331 Research Methods in Criminal Justice

*Prerequisites: CJ 101, CJ 201, CJ 202, CJ 205, or their equivalent.*

An introduction to scientific methodology as related to criminal justice. The course will focus on the development of hypotheses, data collection, data analysis and hypothesis verification. Attention is also given to basic statistical techniques appropriate for criminal justice research.
*Offered every year. 3 credits.*

## CJ 332 Homicide

*Prerequisites: CJ 101, CJ 201, CJ 202, CJ 205, or their equivalent.*

An in-depth discussion of the legal definitions of and rationalizations for homicide. The statistical aggregates of those occasions will be considered in terms of demographic and ethno-cultural phenomena. The murder episode is examined within the context of morality.
*3 credits.*

## CJ 333 Terrorism

*Prerequisites: CJ 101, CJ 201, CJ 202.*

This course will explore the development of terrorism as a form of crime. Topics to be studied include major terrorist groups and their strategies, tactics and targets, jurisdictional issues, anti-and counter-terrorist operations, federal law enforcement, and future trends in terrorism.
*3 credits.*

## CJ 334 Drugs and Crime

*Prerequisites: CJ 101, CJ 201, CJ 202.*

This course will present an overview of the problems of drug-related crime in contemporary society. Specific drug substances are discussed, as well as legal, cultural, and social factors in connection with drug law enforcement.
*3 credits.*

## CJ 335 Comparative Criminal Justice Systems

*Prerequisites: CJ205*

Increasingly, practitioners in the American criminal justice systems are required to interact with their counterparts, as well as citizens from other national jurisdictions. Effective interaction, including cooperation and sharing, requires some understanding of how criminal justice is conceived and practiced in other parts of the world. This course examines and compares key institutions of the criminal justice systems in six model countries, two in Europe, two in Asia, one Islamic nation, and one from Latin America. We look not only at formal organizations in each country, but also at actual practices and how they compare with each other and the United States. To understand how differences and similarities have developed, we also learn something of the history, culture, political system and economic conditions of each model country.
*3 Credits.*

## CJ 336 Supervisory Practices in Law Enforcement

*Prerequisite: Junior standing.*

An examination of supervisory practices and principles utilized in public safety agencies; problems confronting the newly promoted employee; theories of organization and leadership; motivation of subordinates; effective communication; training; performance evaluation; disciplinary processes.
*3 credits.*

## CJ 337 Criminal Justice Ethics

This course investigates the application of moral logic to problems in the field of Criminal Justice. Issues related to policing, criminal prosecution, and corrections will be studied. Students will be encouraged to induce general moral precepts and rules from the examination of particular situations and problems.
*3 Credits.*

## CJ 338 Issues in Contemporary Security

*Prerequisite: Junior standing*

An overview of security systems applicable to contemporary industrial and commercial demands. Losses through physical, technological, and personnel hazards are viewed as preventable phenomena if vulnerabilities are recognized and ameliorative measures taken. Counter-measures will be weighed within the framework of loss criticality and cost of effectiveness.
*3 Credits.*

## CJ 339 Probation, Parole, and Community Corrections

This course will present an overview of correctional options in the community. It will challenge students to consider how sanctions for criminal offenders can be managed in the community without unduly sacrificing community safety or the integrity of the justice system. Community Corrections is a fluid and continually changing field. The focus will be on main themes and trends in probation and parole. Specific attention will be given to the dual and often conflicting goals of community protection and positive offender change with which the practitioner is typically confronted, the types of policies and programs implemented to meet these goals, and their effectiveness.
*3 Credits.*

## CJ 340 - 349 Special Topics in Criminal Justice

An in-depth study of a limited or specialized area within the criminal justice field. Course content will vary according to the area of specialization of the instructor and the interest of the students. May be repeated if course content differs.
*3 credits.*

## CJ 384 Adult Offenders: Case Studies

*Prerequisite: Junior standing.*

A critical, theoretical examination of certain types of adult offenders, especially those who are socially disadvantaged. This examination will be based largely upon the analysis of qualitative research studies that have been done with adult offenders. Special attention is given to the case study method and to understanding adult offenders as individuals making choices within the constraints of larger political, economic, social and ideological structures.
*3 credits.*

## CJ 385 Juvenile Offenders: Case Studies

*Prerequisite: Junior standing.*

A critical, theoretical examination of various types of juvenile offenders. This examination will be based largely upon the analysis of qualitative research studies that have been done with juveniles. Special attention is given to the case study method and to understanding juvenile offenders as individuals embedded within and influenced by numerous social structures (e.g., gender, race, family, school and economics).
*3 credits.*

## CJ 398 Field Practicum in Criminal Justice

*Prerequisite: Permission of the instructor.*

The field practicum class involves the student's participation in the day-to-day functions of a publicly funded criminal justice agency. The course is designed to provide students with an opportunity to translate the theoretically oriented classroom experience into practical application.
*3-6 credits.*

## CJ 399 Independent Study

*Prerequisite: Permission of the instructor.*

Individual research and independent study related to particular aspect of criminal justice that is of special interest.
*3-6 credits.*

# Economics

## Department of Business Administration and Economics

## Faculty

Renuka Jain, Professor (1985), Department Chair
M.Sc., Rajasthan University; Ph.D., McGill University

Wei Pang Lee, Professor (1992)
B.A., Soo Chow University, Taipei, Taiwan; M.B.A., Northwest Missouri State University, Maryville, MO; Ph.D., University of Georgia, Athens, GA

William F. O'Brien, Jr., Associate Professor (1997)
B.S., Worcester State College; M.A., Northeastern University;
Ph.D. Northeastern University

Bonnie Orcutt, Associate Professor (2004)
B.S., Worcester State College; M.A., Ph.D., Clark University

The economics program is designed to help students understand the world they live in, analyze important social issues, and adapt to a changing economic climate.

The Economics Major is good preparation for a wide variety of careers in various government agencies, business firms, non-profit organizations, and academic institutions. It is a good basis for advanced professional degrees in areas such as management, finance, law, and public affairs. Since it is frequently necessary to obtain additional training in order to become a professional economist, the major is also designed to prepare students for graduate study.

Omicron Delta Epsilon, the international honor society in economics, is available to outstanding students.

**Requirements for a Major in Economics:** 33 credits

| | |
|---|---|
| EC 110 | Introduction to Microeconomics |
| EC 120 | Introduction to Macroeconomics |
| EC 200 | Intermediate Macroeconomics |
| EC 201 | Intermediate Microeconomics |
| EC 207 | Statistics (or another acceptable statistics course) |

One of the following:

| | |
|---|---|
| EC 305 | Introduction to Mathematical Economics |
| EC 306 | Introduction to Econometrics |
| | (or a course in which calculus is a primary topic) |

The remaining 15 (or more) credits may be chosen from economics electives in accordance with special interests and career objectives.

**Requirements for a Major in Economics, Concentration in Labor Studies/Labor Relations:** All courses required for the major, plus

| | |
|---|---|
| EC 202 | Labor Economics |
| EC 209 | Human Capital in the Workplace |
| BA 200 | Principles of Management and Organizational Behavior |
| BA 305 | Organizational Dynamics |

Two of the following:

| | |
|---|---|
| HI 208 | American Immigrant History |
| HI 216 | Economic History of the United States |
| HI 249 | United States Labor History I |
| HI 250 | United States Labor History II |

**Requirements for a Major in Economics, Concentration in International Trade:** All courses required for the major, with at least 3 electives chosen from:

| | |
|---|---|
| EC 301 | Economic Development |
| EC 302 | Development Planning and Regional Economics |
| EC 307 | International Finance |
| EC 308 | International Trade |
| BA 440 | International Business |

**Requirements for a Major in Economics, Concentration in Public Policy:** All courses required for the major, with at least 3 electives chosen from:

| | |
|---|---|
| EC 203 | Government Policy Toward Business |
| EC 206 | Urban Economics |
| EC 208 | Economics of Health Care |
| EC 304 | Economics of the Environment |
| EC 309 | Public Spending and Taxation |
| BA 360 | Public Program Analysis **or** BA 361 Public Management |

**Students are encouraged to take an internship if their program permits.**

**Requirements for a Minor:** 18 credits

| | |
|---|---|
| EC 110 | Introduction to Microeconomics |
| EC 120 | Introduction to Macroeconomics |

PLUS Any four additional Economics courses

# Economics Courses

### EC 102 Consumer Economics

An in-depth study of personal and family economics, obtaining income, buying wisely, consumer borrowing, saving, and financial investment; the consumer protection and consumer legislation movements will be specifically emphasized.
*Offered every year. 3 credits.*

### EC 103 Survey of Economics

The basic concepts of micro and macro economics are covered. The expanding role of the international trade is discussed.
*Offered every 3 years. 3 credits.*

### EC 104 Personal Financial Planning

An investigation of the major vehicles for our personal savings: bonds, stocks, mutual funds, real estate, and retirement and estate planning.
*Offered every 3 years. 3 credits.*

### EC 110 Introduction to Microeconomics

An introduction to the operation of the American market system and to the behavior of its participants whether consumers, producers, the government, or other nations engaged in international trade with the United States.
*Offered every year. 3 credits.*

## EC 120 Introduction to Macroeconomics

Introduction to economic analysis with particular emphasis upon the national problems of achieving and maintaining full employment, general price stability, and growth of the American economy through time.
*Offered every year. 3 credits.*

## EC 200 Intermediate Macroeconomics

*Prerequisite: EC 120*

An intermediate analysis of the determination of the level and growth of national income and employment, special attention given to the problems of inflation and recession and to the national fiscal and monetary policies designed to maintain full employment and stable price levels.
*Offered every year. 3 credits.*

## EC 201 Intermediate Microeconomics

*Prerequisite: EC 110, EC 120*

An intermediate level treatment of the theory of market pricing in a private enterprise system as it affects the resource and output decision of firms and industries under various market structures and the behavior of consumers.
*Offered every year. 3 credits.*

## EC 202 Labor Economics

*Prerequisite: EC 110*

A study of the process of wage determination in a market economy, consideration given to the evolution of union organization and collective bargaining affecting wages, hours, working conditions, and grievance procedures for labor.
*Offered every year. 3 credits.*

## EC 203 Government Policy Toward Business

*Prerequisite: EC 110*

An analysis of the problems of competition and monopoly, especially as they affect concentration of economic activity and market power in the American industrial structure; emphasis is placed upon government policy to maintain or regulate competition in the public interest.
*Offered every year. 3 credits.*

## EC 205 Money, Banking, and Monetary Policy

*Prerequisites: EC 110, EC 120*

A study of the roles of money, depository institutions, and central bank monetary policy in maintaining stable growth of the American economy.
*Offered every 3 years. 3 credits.*

## EC 206 Urban Economics

*Prerequisite: EC 120*

The theory and policy of the growth and development of metropolitan areas; some of the policy-related problems discussed are poverty, residential and commercial land use, and traffic congestion.
*Offered every 2 years. 3 credits.*

## EC 207 Statistics

*Prerequisite: EC 110 or EC 120*

Basic tools of statistical analysis appropriate to research in the social sciences; topics include measures of central tendency, hypothesis testing, time series, index numbers, regression and correlation.
*Offered every 2 years. 3 credits.*

## EC 208 Economics of Health Care

*Prerequisite: EC 110*

Introductory study of the health care industry of the United States; pricing of health care, manpower availability, alternative delivery systems, third party payments, and government role in planning, regulating, and financing health care.
*Offered every 3 years. 3 credits.*

## EC 209 Human Capital in the Workplace

*Prerequisite: EC 110*

A study of investment in human resources and workplace programs to enhance employee productivity, job security and personal advancement.
*Offered every 3 years. 3 credits.*

## EC 301 Economic Development

*Prerequisites: EC 110, EC 120*

A survey of contemporary economic theories concerning less developed countries; social, cultural, and political forces shaping the development of such countries are also investigated.
*Offered every 3 years. 3 credits.*

## EC 302 Development Planning and Regional Economics

*Prerequisites: EC 110, EC 120*

A survey of the problems that must be dealt with by less-developed countries in planning their economic development. Theories of regional economics applicable to both developed and less developed economies.
*Offered every 3 years. 3 credits.*

## EC 304 Economics of the Environment

*Prerequisite: EC 110*

Methods of pollution control and the socio-economic problems caused by pollution, current research on ecology andeconomics, and the impact that limits on pollution may have on income and population growth.
*Offered every 3 years. 3 credits.*

## EC 305 Introduction to Mathematical Economics

*Prerequisite: EC 110*

A survey of some basic mathematical techniques appropriate to the analysis of economic models and application of economic theory.
*Offered every 2 years. 3 credits.*

## EC 306 Introduction to Econometrics

*Prerequisites: EC 110, MA 150 or EC 207*

The application of statistical techniques to the verification of economic models and examination of economic problems.
*Offered every 2 years. 3 credits.*

## EC 307 International Finance

*Prerequisites: EC 110, EC 120*

Study of how international trade and investment is financed in a world of floating, fixed and managed exchange rate systems.
*Offered every 2 years. 3 credits.*

## EC 308 International Trade

*Prerequisites: EC 110, EC 120*

Reasons why nations gain by spatial specialization and exchange with other countries. Analysis of the mechanism by which international equilibrium is restored. Study of trade and foreign exchange policies.
*Offered every 2 years. 3 credits.*

## EC 309 Public Spending and Taxation

*Prerequisites: EC 110, EC 120*

Analysis of government spending, revenue sharing and taxation; includes the impact of government spending upon efficient use of resources and national growth.
*Offered every 3 years. 3 credits.*

## EC 312 Natural Resource Economics

*Prerequisite: EC 110*

The use of renewable and non-renewable natural resources in a market economy and the role of government policy concerning them.
*Offered every 2 years. 3 credits*

## EC 400 Independent Study in Economics

*Prerequisites: EC 200, EC 201*

For the student whose needs cannot be fully met by available offerings; actual arrangements to be made between student and professor; not intended for general enrollment; a limit of three credits can be acquired.
*Offered every year. 1-3 credits.*

## EC 401 Seminar

*Prerequisites: EC 200, EC 201*

A research and discussion process intended to summarize and provide some career orientation to the undergraduate preparation of the economics major at the senior class level.
*Offered every 3 years. 3 credits*

## EC 402 Internship in Economics

*Prerequisites: EC 200, EC 201*

Practical experience in economic analysis with industry, non-profit organizations, government agencies; internships may be of varying length.
*Offered every year. 1-12 credits.*

# Education

## Department of Education

**DISCLAIMER:**

REGULATIONS FOR TEACHER LICENSURE ARE CURRENTLY UNDER REVIEW BY THE BOARD OF EDUCATION. AS A RESULT, THE PROGRAMS DESCRIBED BELOW MAY BE SUBJECT TO CHANGE AT ANY TIME.

## Faculty

Joshua U. Aisiku, Professor (1985)
A.B., University of Ife; M.A., Ph.D., Cornell University

Margaret Pray Bouchard, Assistant Professor (2002)
B.S., Bridgewater State College; M.Ed., Boston College; Ed.D, Boston University

Caroline M. Chiccarelli, Associate Professor (2001)
A.B., Newton College of the Sacred Heart; M.A., Fairleigh Dickinson University; Ph.D., University of Connecticut

Diane Tighe Cooke, Assistant Professor (2002)
B.S., Louisiana State University; M.A., University of Colorado-Boulder; Ph.D., University of Colorado-Boulder

Carol Burns Donnelly, Associate Professor (1997)
A.B., Wellesley College; M.A., University of Miami; M.Ed., Harvard University; Ed.D, Boston University

Anne M. Falke, Associate Professor (1997)
B.A., University of Rhode Island; Ph.D., University of New Hampshire

Sue Fan Foo, Assistant Professor (2004)
M.Ed., Ed.D., University of Cincinnati

Raynold Lewis, Professor (1998)
BTH, West Indies College; M.Ed., Worcester State College; Ph.D., Illinois State University

Mary Ellen Meegan, Professor (1971)
B.S., Framingham State College; M.Ed., Ph.D., Boston College

Patrick J. O'Connor, Associate Professor (1995)
B.A., Assumption College; M.A., Niagara University; Ed.D., University of Massachusetts

Margarita Perez, Associate Professor (1999)
B.A., Mount Holyoke; M.A., Ed.D., Teachers College, Columbia University

Elaine Tateronis, Professor (1996) Department Chair
B.S., M.Ed., Worcester State College; Ed.D., Boston College

Audrey E. Wright, Associate Professor (2002)
B.S., M.Ed., Worcester State College; Ed.D., University of Massachusetts

The Education Department offers a wide range of undergraduate and graduate programs in professional education. Students can become licensed to teach in early childhood (N-2) with and without disabilities, elementary (1-6), middle (5-8), or secondary (8-12) schools or credentialed to teach in preschool and day care programs. The Department programs offer a blending of classroom and field work approaches. Kappa Delta Pi, the International Honor Society in education, is available to outstanding upper-division students. Graduate programs provide opportunities for students to prepare for careers in reading, educational administration as well as in early childhood, elementary, middle, or secondary education.

To teach in the Commonwealth of Massachusetts a teaching license is required. The Worcester State College program is recognized by the Massachusetts Department of Education as having an approved program in the fields of Early Childhood Education, Elementary Education, Middle School Education and Secondary School Education. Students in the Elementary and Early Childhood Education programs have two complete majors, one in the content area and one in education. The Middle and Secondary school programs have a major in content and a minor in education. The Massachusetts Test for Educator Licensure (MTEL) is embedded in the program at various stages and must be passed for completion of the program and licensure.

## Title II Institutional Report for 2003-2004

Section I: Pass Rates. Supplied by the Massachusetts Department of Education (DOE) by National Evaluation Systems, Inc. (NES)

The attached Annual Institution Report for the 2003-2004 Program Year was obtained through NES. Program completers for whom information was previously provided to derive these data re: those who completed program requirements in the most recent academic year. Thus, for institutional reports due to the state by April 4, 2005, the relevant information is for those who completed program requirements in academic year 2003-04. For purposes of this report, program completers do not include those who have completed an alternative route to licensure as defined by the state.

**Massachusetts Tests for Educator Licensure**
Annual Institution Report

**Program Year: 2003-2004**
Process date: **12-07-04**
Institution: **59 - Worcester State College**
Number of Program Completers: **66**

| | Institution | | | Statewide |
|---|---|---|---|---|
| **Test Field/Category** | **Number Tested** | **Number Passed** | **Pass Rate** | **Pass Rate** |
| **Basic Skills** | | | | |
| Communication Literacy Reading | 63 | 63 | 100% | 100% |
| Communication Literacy Writing | 63 | 63 | 100% | 99% |
| **Aggregate** | **63** | **63** | **100%** | **99%** |
| **Academic Content Areas** | | | | |
| Early Childhood | 6 | | -- | 96% |
| General Curriculum | 28 | 28 | 100% | 99% |
| Social Studies | 1 | | -- | 100% |
| History | 8 | -- | -- | 99% |
| English | 4 | -- | -- | 98% |
| Reading Specialist | 1 | -- | -- | 88% |
| Mathematics | 8 | -- | -- | 99% |
| General Science | 2 | -- | -- | 100% |
| Biology | 2 | -- | -- | 99% |
| Spanish | 1 | | | 95% |
| Middle School Mathematics | 1 | | | 100% |
| Foundations of Reading | 33 | 33 | 100% | 94% |
| **Aggregate** | **95** | **95** | **100%** | **96%** |
| **Summary Totals and Pass Rate** | **63** | **63** | **100%** | **95%** |

*" --" indicates "Number Passed" and "Pass Rate" not shown because "Number Tested" is less than 10.*

# Early Childhood Education Major

The Early Childhood Education major prepares candidates for the Massachusetts Department of Education Initial License as a teacher of children in public school classrooms, preschool through grade 2 or for the Massachusetts Office of Child Care Services Head Teacher License. Both programs of studies are based upon a broad liberal arts foundation and an integrated professional teacher preparation program. A course waiver process is available for transfer students where appropriate. Field work accompanies most education courses and is required and needed as a necessary component of the program. It should be noted that student pre practicum experience should include a wide variety of field settings. Students should attend different and varied schools in urban, rural and suburban settings. They should also vary their placements and grade levels in different school buildings within districts to insure a well rounded experience.

It is understood that if students do not abide by these fieldwork directives, they will be asked to redo their hours for pre practicum.

The Massachusetts Test for Educator Licensure (MTEL) is embedded in the program at various stages and must be passed for completion of the program and licensure.

# Early Childhood Education Major Teacher Licensure Program (Massachusetts Public Schools, N-2)

**Requirements for a Major in Early Childhood Education leading to MA Department of Education Initial Licensure (N-2): 36 credits**

| | |
|---|---|
| ED 160 | Early Childhood Education Today |
| ED 206 | Young Children, Learning and Special Needs |
| ED 211 | Integrating Science, Social Studies and the Arts into Early Childhood Education Curriculum |
| ED 286 | Assessment of Development and Learning of Typical and Atypical Children |
| ED 301 | ECE: Math and Science |
| ED 317 | ECE: Early Literacy, Children's Literature, Language Arts (6 credits) |
| ED 313 | Practicum in Preschool Education |
| ED 400 | Inclusive Early Childhood Education |
| ED 405 | Classroom Management and Child Guidance Techniques in Early Childhood Education |
| ED 430 | Practicum in Primary Education (6 credits) |

**Prerequisite Courses:**

| | |
|---|---|
| PS 210 | Child Growth and Development |
| CD 115 | Normal Development of Speech and Language |
| HE 150 | Health and Physical Education for the Teacher **OR** |
| HE 140 | Creative Arts and Health |

Students will also be required to take specific liberal arts and science courses to satisfy foundation and distribution requirements. See advising program sheets.

**Early Childhood Education majors must also complete an academic major in the arts or sciences offered at the College and approved by the Department.**

**Admission to the Early Childhood Education Major**

Early Childhood Education majors seeking the MA Department of Education Initial License will progress through a three-stage process. Each stage must be satisfactorily completed before passage to the next stage.

**Stage I: Pre-Early Childhood Major**

1. Students demonstrate competence in communication skills by completing the following course with a grade of C+ or higher.

   EN 102 English Composition II (or equivalent)

2. Students must submit a (Criminal Offender Records Information) CORI check application and be approved prior to beginning classroom observations in the Worcester Public Schools. No student is allowed to do field work unless approval of the CORI has been received from the state.
3. Students demonstrate potential for teaching children by completing the following courses with a grade of C+ or higher in ALL prerequisite courses AND a prerequisite AND cumulative GPA of 2.5.

   PS 210 Child Growth and Development
   ED 160 Early Childhood Education Today
   ED 206 Young Children, Learning, and Special Needs
   ED 211 Integrating Science, Social Studies and the Arts in Early Childhood Education
   ED 286 Assessment of Development and Learning of Typical and Atypical Children

4. Students must receive a passing grade on at least one part of the Massachusetts Test for Educator Licensure (MTEL) Communication and Literacy Skills Test.
5. Any departure from the prescribed program of study for teacher licensure must have Waiver Committee approval prior to advancement to Stage II.

**Stage II: Early Childhood Education Major**

1. Upon satisfactory completion of Stage I requirements, students are eligible to apply for formal admission to the Early Childhood Education Major. The application must include a satisfactory physical examination, Mantaux test results, MTEL test results and transcripts of all previous course work. Approval by the Education Department is necessary for a student to progress to Stage II.

   During Stage II, students must complete the following with a Grade of C+ or higher in ALL prerequisite courses AND a prerequisite AND cumulative GPA of 2.7. Field work accompanies the following method courses.

   ED 301 ECE: Math and Science
   ED 317 Early Literacy, Children's Literature, Language Arts (6 credits)
   ED 313 Practicum in Preschool Education

2. Students must apply for formal admission into ED 313: Practicum in Preschool Education. This application will be reviewed and acted upon by the Licensure Officer. Additional information regarding formal application for the Pre-school and Primary Practicum is available in the Education Office S-226.
3. Students must have received a passing grade on all portions of the Massachusetts Test for Educator Licensure (Communication and Literacy, Early Childhood, and Foundations of Reading).

**Stage III: Early Childhood Education Major – Practicum**

1. Upon satisfactory completion of Stage II requirements, students are eligible to apply for formal admission into ED 430: Practicum in Primary Education (Co-requisite ED 405).
2. Students must have attained senior standing (90 credits of course work) to complete the Primary Practicum.

3. This application will be reviewed and acted upon by the Licensure Officer.
4. Students convicted of a felony may be denied admission to student teaching.

Additional information regarding formal application for the Pre-school and Primary Practicum is available in the Education Office S-226.

# Early Childhood Non-Licensure Track

## (Early Intervention, Head Start, Private Preschool, and Group Day Care)

### Requirements for Non-Licensure Track: 30 Credits

| | |
|---|---|
| ED 160 | Early Childhood Education Today |
| ED 206 | Young Children, Learning, and Special Needs |
| ED 211 | Integrating Science, Social Studies and the Arts into ECE Curriculum |
| ED 286 | Assessment of Development and Learning of Typical and Atypical Children |
| ED 301 | ECE: Math and Science |
| ED 317 | ECE: Early Literacy, Children's Literature, Language Arts (6 Credits) |
| ED 313 | Practicum in Preschool Education |
| ED 399 | Inclusive ECE |

**Culminating experience: ED 319 Advanced Field Experience or ED 450 Independent Study in Education.**

**Prerequisite Courses:**

| | |
|---|---|
| PS 210 | Child Growth and Development |
| CD 115 | Normal Development of Speech and Language |
| HE 150 | Health and Physical Education for the Teacher **OR** |
| HE 140 | Creative Arts and Health |

**Non-licensure students must also complete an academic major in the arts or sciences offered at the College and approved by the Department.**

### Admission to the Non-Licensure Track

Non-licensure track students will progress through a two-stage process. Each stage within this track must be satisfactorily completed before passage to the next stage.

### Stage I: Non-Licensure Track

1. Students demonstrate competence in communication skills by completing the following course with a grade of C+ or higher.

   EN 102 English Composition II (or equivalent)

2. Students must submit a CORI check application and be approved prior to beginning classroom observations in the Worcester Public Schools. No student is allowed to do field work unless approval of the CORI has been received from the state.

3. Students demonstrate potential for teaching children by completing the following courses with a grade of C+ or higher in ALL prerequisite courses AND a prerequisite AND cumulative GPA of 2.5.

   | | |
   |---|---|
   | ED 160 | Early Childhood Education Today |
   | ED 206 | Young Children, Learning, and Special Needs |
   | ED 211 | Integrating Science, Social studies and the Arts in Early Childhood Education |
   | ED 286 | Identification of the Preschool Child with Special Needs |

4. Any departure from the prescribed program of study for teacher licensure must have Waiver Committee approval prior to advancement to Stage II.

**Stage II: Non-Licensure Track Early Childhood**

1. Upon satisfactory completion of Stage I requirements, the student is eligible to apply for formal admission to the Non-Licensure Program. The application must include a satisfactory physical examination, Mantaux test results, and transcripts of all previous course work. Approval by the Education Department is necessary for a student to progress to Stage II.

   During Stage II, students must complete the following with a Grade of C+ or higher in ALL prerequisite courses AND a prerequisite AND cumulative GPA of 2.7 AND a B or higher in ED 313.

   Stage II will consist of the following courses. Field work accompanies the following method courses.

   | | |
   |---|---|
   | ED 301 | ECE: Math and Science |
   | ED 317 | ECE: Early Literacy, Children's Literature, Language Arts (6 Credits) |
   | *ED 313 | Practicum in Preschool Education |
   | ED 399 | Working with Diverse Families and Children Birth through Pre-school. |

   Culminating Experience: ED 319 Practicum in Kindergarten or ED 450 Independent Study

   *90 credits must be completed prior to taking ED 313.

2. Students must apply for formal admission to ED 313: Practicum in Preschool Education. This application will be reviewed and acted upon by the Licensure Officer. Additional information regarding formal application for the preschool practicum is available in the Education Office S-226.

# Elementary Education Major Teacher Licensure Program

The Elementary Education major prepares candidates for Initial Licensure as a teacher of children in a public school classroom, grades 1 through 6. The program of study is based upon a broad liberal arts foundation and an integrated professional teacher preparation program. A course waiver process is available for transfer students where appropriate. Field work accompanies most education courses and is required and needed as a necessary component of the program. It should be noted that student pre practicum experience should include a wide variety of field settings. Students should attend different and varied schools in urban, rural and suburban settings. They should also vary their placements and grade levels in different school buildings within districts to insure a well rounded experience.

It is understood that if students do not abide by these fieldwork directives, they will be asked to redo their hours for pre practicum. The Massachusetts Test for Educator Licensure (MTEL) is embedded in the program at various stages and must be passed for completion of the program and licensure.

**Requirements for a Major in Elementary Education: 33 credits**

| | |
|---|---|
| ED 155 | Teaching and Learning Elementary School |
| ED 250 | Educational Psychology |
| ED 275 | Curriculum and Instruction in Elementary Education |
| ED 320 | Elementary Science |
| ED 325 | Elementary Math |
| ED 330 | Elementary Social Studies & Multiculturalism |
| ED 343 | Elementary Reading Language Arts & Literature |
| ED 425 | Seminar: Applying Educational Principles |
| ED 435 | Student Teaching in the Elementary School |

**Prerequisite Courses**

| | |
|---|---|
| PS 210 | Child Growth and Development |
| HE 150 | Health and Physical Education for the Teacher **or** |
| HE 140 | Creative Arts and Health |

Students will also be required to take specific liberal arts and science courses to satisfy foundation and distribution requirements.

**Elementary Education majors seeking Initial Licensure must also complete an academic major in the arts or sciences offered at the College and approved by the Department.**

**Admission to the Elementary Education Major**

Students planning to major in Elementary Education will progress through a three-stage process. Each stage must be satisfactorily completed before passage to the next stage.

**Stage I Pre-Elementary Education Major**

1. Competence in communication skills as demonstrated by completion of the following course with a grade of C+ or higher:

   EN 102 English Composition II (or equivalent)

2. Students must submit a Criminal Offender Records Information (CORI) check application and be approved prior to doing classroom observations in Worcester Public Schools. No student is allowed to do field work unless approval of the CORI has been received from the state.

3. Students demonstrate potential for teaching children by completing the following courses with a grade of C+ or higher in ALL prerequisite courses AND a prerequisite AND cumulative GPA of 2.5.

   | | |
   |---|---|
   | PS 210 | Child Growth and Development |
   | ED 155 | Teaching and Learning in the Elementary School |
   | ED 250 | Educational Psychology |
   | ED 275 | Curriculum and Instruction in Elementary Education |

4. Students must have received a passing grade on at least one part of the Communication and Literacy Skills Test (MTEL).

5. Any departure from the prescribed program of study for teacher licensure must have Waiver Committee approval prior to advancement to Stage II.

**Stage II Elementary Education Major**

1. Upon satisfactory completion of Stage I requirements, the student is eligible to apply for formal admission to the Elementary Education Major. The application must include a satisfactory physical examination, Mantaux test results, MTEL test results and transcripts of all previous course work. Approval by the Education Department is necessary for a student to progress to Stage II.

2. During Stage II, students must complete the following with a Grade of C+ or higher in ALL prerequisite courses AND a prerequisite AND cumulative GPA of 2.7. Field work accompanies the following method courses.

   | | |
   |---|---|
   | ED 320 | Elementary Science |
   | ED 325 | Elementary Math |
   | ED 330 | Elementary Social Studies & Multiculturalism |
   | ED 343 | Elementary Reading, Language Arts and Literature |

3. Students must have received a passing grade on the Massachusetts Test for Educator Licensure (MTEL) in Communication and Literacy Skills, Foundations of Reading and Elementary Education.

**Stage III Elementary Education Major – Practicum**

1. Upon satisfactory completion of Stage II requirements, the student is eligible to apply for formal admission into the Practicum, ED 435 Student Teaching in the Elementary School (Co-requisite ED 425).
2. The Stage III application will be reviewed and acted upon by the Licensure Officer.
3. Students must have attained senior standing to student teach.
4. Students convicted of a felony may be denied admission to student teaching.

Additional information regarding formal application into student teaching is available in the Education Office, S-226.

# Middle School Education Teacher Licensure Program

Worcester State College offers the Initial Licensure Program in Middle School Education (grades 5-8) and the Professional Licensure program in Middle School Education (grades 5-8) at the graduate level. The Massachusetts Test for Educator Licensure (MTEL) is embedded in the program at various stages and must be passed for completion of the program and licensure.

Fieldwork accompanies most education courses and is required and needed as a necessary component of the program. It should be noted that student pre practicum experience should include a wide variety of field settings. Students should attend different and varied schools in urban, rural and suburban settings. They should also vary their placements and grade levels in different school buildings within districts to insure a well rounded experience.

It is understood that if students do not abide by these fieldwork directives, they will be asked to redo their hours for pre practicum.

**Admission Requirements: Undergraduate Program.**

Students planning to minor in Middle Education will progress through a three-stage process. Each stage must be completed satisfactorily prior to passage to the next stage. All education courses require field work.

**Stage I: Middle School Education Minor**

1. Completion of EN 102 English Composition II with a grade of C+ or higher.
2. Completion of 15 semester hours in the subject major.
3. Students must submit a Criminal Offender Records Information (CORI) check application and be approved prior to doing observations for Education courses. No student is allowed to do field work unless approval of the CORI has been received from the state
4. Students demonstrate potential for teaching children by completing the following courses with a grade of C+ or higher in ALL prerequisite courses AND a prerequisite AND cumulative GPA of 2.5.

   | | |
   |---|---|
   | PS 215 | Psychology of Adolescence |
   | ED 250 | Educational Psychology |
   | ED 251 | Foundations of Education |
   | ED 270 | Diversity and Multicultural Education |

5. Students must have received a passing grade on at least one part of the Massachusetts Test for Educator Licensure (MTEL) Communication and Literacy Skills Test.
6. Any departure from the prescribed program of study for teacher licensure must have Waiver Committee approval prior to advancement to Stage II.

**Stage II: Middle School Education Minor**

1. Upon satisfactory completion of Stage I requirements, the student is eligible to apply for formal admission into the middle school education minor. The application must include a satisfactory physical examination, Mantaux test results, MTEL test results and transcripts of all previous course work. Approval by the Education Department is necessary for a student to progress to Stage II.
2. During Stage II, students must complete the following with a Grade of C+ or higher in ALL prerequisite courses AND a prerequisite AND cumulative GPA of 2.7. Field work accompanies the following method courses.

   ED 352 Principles of Curriculum and Evaluation in the Middle School
   ED 354 Effective Teaching in the Middle School
3. Students must have received a passing grade on the Massachusetts Test for Educator Licensure (MTEL) in their major subject area and communication and literacy skills.

**Stage III: Middle School Education Minor – Practicum**

1. Upon satisfactory completion of Stage II requirements, the student is eligible to apply for:
   ED 485 Practicum in Teaching Middle School
   ED 424 Seminar
2. Students must have attained senior standing to student teach.
3. The Stage III application will be reviewed and acted upon by the Licensure Officer.
4. Students convicted of a felony may be denied admission to student teaching.

Additional information regarding formal application into student teaching is available in the Education Office S-226.

**Admission to the program does not guarantee student teaching eligibility.**

The Department of Education offers Initial Licensure programs in the following areas in cooperation with liberal arts and sciences departments.

| | |
|---|---|
| Teacher of Biology | (5-8) |
| Teacher of Chemistry | (5-8) |
| Teacher of English | (5-8) |
| Teacher of History | (5-8) |
| Teacher of General Science | (5-8) |
| Teacher of Health/Family and Consumer Sciences | (5-12) |
| Teacher of Political Science | (5-8) |
| Teacher of Mathematics | (5-8) |
| Teacher of Earth Science | (5-8) |
| Teacher of Spanish | (5-12) |
| Teacher of Middle School: Humanities | (5-8) |
| Teacher of Middle School: Mathematics/Science | (5-8) |

For required courses in these areas students should consult their liberal arts/science advisor.

# Secondary School Education Teacher Licensure Program

Worcester State College offers the Initial Licensure in Secondary School Education (grades 8-12) and the Professional Licensure program in Secondary School Education (grades 8-12) at the graduate level. The Massachusetts Test for Educator Licensure (MTEL) is embedded in the program at various stages and must be passed for completion of the program and licensure.

Fieldwork accompanies most education courses and is required and needed as a necessary component of the program. It should be noted that student pre practicum experience should include a wide variety of field settings. Students should attend different and varied schools in urban, rural and suburban settings. They should also vary their placements and grade levels in different school buildings within districts to insure a well rounded experience.

It is understood that if students do not abide by these fieldwork directives, they will be asked to redo their hours for pre practicum.

**Admission Requirements: Undergraduate Program.**

Students planning to minor in Secondary Education will progress through a three-stage process. Each stage must be completed satisfactorily prior to passage to the next stage. All education courses require field work.

**Stage I: Secondary School Education Minor**

1. Completion of EN 102 English Composition II with a grade of C+ or higher.
2. Completion of 15 semester hours in the subject major.
3. Students must submit a Criminal Offender Records Information (CORI) check application and be approved prior to doing observations for Education courses. No student is allowed to do field work unless approval of the CORI has been received from the state.
4. Students demonstrate potential for teaching children by completing the following courses with a grade of C+ or higher in ALL prerequisite courses AND a prerequisite AND cumulative GPA of 2.5.

   | | |
   |---|---|
   | PS 215 | Psychology of Adolescence |
   | ED 250 | Educational Psychology |
   | ED 251 | Foundations of Education |
   | ED 270 | Diversity and Multicultural Education |

5. Students must have received a passing grade on at least one part of the Massachusetts Test for Educator Licensure (MTEL) Communication and Literacy Skills Test.
6. Any departure from the prescribed program of study for teacher licensure must have Waiver Committee approval prior to advancement to Stage II.

**Stage II: Secondary School Education Minor**

1. Upon satisfactory completion of Stage I requirements, the student is eligible to apply for formal admission into the Secondary School Education minor. The application must include a satisfactory physical examination, Mantaux test results, MTEL test results and transcripts of all previous course work. Approval by the Education Department is necessary for a student to progress to Stage II.
2. During Stage II, students must complete the following with a Grade of C+ or higher in ALL prerequisite courses AND a prerequisite AND cumulative GPA of 2.7. Field work accompanies the following method courses.

   | | |
   |---|---|
   | ED 351 | Principles of Curriculum and Evaluation in the Secondary School |
   | ED 353 | Effective Teaching in the Secondary School |

3. Received a passing grade on the Massachusetts Test for Educator Licensure (MTEL) in their major subject area and communication and literacy skills.

**Stage III: Secondary School Education Minor – Practicum**

1. Upon satisfactory completion of Stage II requirements, the student is eligible to apply for:
   ED 480 Practicum in Teaching Secondary School
   ED 424 Seminar
2. Students must have attained senior standing to student teach.
3. The Stage III application will be acted upon by the Licensure Officer.
4. Students convicted of a felony may be denied admission to student teaching.

Additional information regarding formal application into student teaching is available in the Education Office S-226.

**Admission to the program does not guarantee student teaching eligibility.**

The Education Department offers Initial Licensure programs in the following areas in cooperation with the liberal arts and sciences departments.

| | |
|---|---|
| Teacher of English | (8-12) |
| Teacher of History | (8-12) |
| Teacher of Political Science | (8-12) |
| Teacher of Mathematics | (8-12) |
| Teacher of Chemistry | (8-12) |
| Teacher of Biology | (8-12) |
| Teacher of Earth Science | (8-12) |
| Teacher of Health/Family and Consumer Sciences | (5-12) |
| Teacher of Spanish | (5-12) |

For required courses in these areas, students should consult their liberal arts/science advisor.

# Education Courses (Undergraduate)

## MOST EDUCATION COURSES REQUIRE FIELDWORK

### ED 155 Teaching & Learning in Elementary School

Overview of the teaching profession, examination of a variety of learning environments, organizing and managing classrooms, integrating curricula, observational techniques.
*Offered every year. 3 credits. Field Experience: 15 hrs.*

### ED 160 Early Childhood Education Today

Exploration of programs, emphasizing developmentally appropriate practice, creativity motor skills. Discussion of families, community resources, play, integration of special needs.
*Offered every year. 3 credits. Field Experience: 12 hrs.*

### ED 206 Young Children, Learning and Special Needs

*Prerequisites: PS 210, ED 160*

Analysis of development and learning based on current psychological theory. Structuring experiences to foster progress for typical and atypical children.
*Offered every year. 3 credits. Field Experience: 15 hrs.*

### ED 211 Integrating Science, Social Studies and the Arts in Early Childhood Curriculum

*Prerequisites: PS 210, ED 160, ED 206*

Designing and implementing programs, physical environment, regulations, planning, Massachusetts Curriculum Frameworks. Students design integrated units and implement activities.
*Offered every year. 3 credits. Field Experience: 20 hrs.*

## ED 250 Educational Psychology Elementary

*Prerequisites: PS 210, ED 155*

Learning and developmental processes of typical and atypical learners. Motivation, relationships of intelligence, affect, and achievement. Application to teaching and learning.
*Offered every year. 3 credits. Field Experience: 10 hrs.*

## ED 250 Educational Psychology Middle and Secondary Majors

*Prerequisite: PS 215*

Learning and developmental processes of typical and atypical learners. Motivation, relationships of intelligence, affect, and achievement. Application to teaching and learning.
*Offered every year. 3 credits. Field Experience: 10 hrs.*

## ED 251 Foundations of Education

*Prerequisites: PS 215, ED 250*

Critical examination of social, psychological, and philosophical factors, which underlie educational thought and practices in America, noting relevant historical antecedents.
*Offered every year. 3 credits. Field Experience: 15 hrs.*

## ED 253 History of Philosophy of Education

Contemporary problems of education in relation to selected ancient, medieval and modern philosophers of education.
*Offered every year. 3 credits.*

## ED 260 Using Computers in Early Childhood/Elementary Education

Course treats LOGO, LOGO WRITER, identification/evaluation of ECE/Elementary educational software, educational computer issues, word processing for children, curriculum integration.
*Offered every year. 3 credits.*

## ED 270 Diversity and Multicultural Education

*Prerequisites: PS 215 and ED 251, ED 250*

Analysis of goals, values and practices in educating culturally diverse student populations. Includes bilingual, special needs and gifted students.
*Category 1. 3 credits. Field Experience: 15 hrs.*

## ED 275 Curriculum and Instruction in Elementary Education

*Prerequisites: ED 155, ED 250, and PS 210*

Analysis of interactions in effective elementary schools through participation in and exploration of curriculum, teaching and learning roles. Field experience.
*Offered every year. 3 credits. Field Experience: 10 hrs.*

## ED 286 Assessment of Development and Learning of Typical and Atypical Children

*Prerequisites: PS 210, ED 160, ED 206, ED 211*

Development of skills to asses young children and identify special needs. Focus on child development and Massachusetts Curriculum Frameworks.
*Offered every year. 3 credits. Field Experience: 5 hrs.*

## ED 301 ECE: Math and Science

*Prerequisite: Admitted into Stage II*

Focus is on the integration of mathematics and science education for young children in an inquiry based environment.
*Offered every year. 3 credits. Field Experience: 10 hrs.*

## ED 313 Practicum in Early Childhood Education: Preschool/Kindergarten

*Prerequisites: Admitted into Stage II, Senior Status*

150 hour practicum in an NAEYC accredited preschool/kindergarten/licensed day care center. Student apply content, methods, and materials from college courses.
*Offered every year. 3 credits.*

## ED 317 ECE: Early Literacy, Children's Literature, and Language Arts

*Prerequisite: Admitted into Stage II*

Content, curriculum, materials, approaches to early literacy for all children. Includes whole language, comprehension, progress writing, beginning reading, and integrated literature.
*Offered every year. 6 credits. Field Experience: 20 hrs.*

## ED 319 Advanced Field Experience in Early Childhood Education

*Prerequisite: ED 313 or equivalent*

Students who have already completed a preschool practicum complete an additional 100-150 hour field experience in Early Childhood Education.
*Offered every year. 3 credits.*

## ED 320 Elementary Science

*Prerequisite: Admitted into Stage II*

Thematically taught emphasizing engaging hands-on activities, constructivism, cooperative learning, authentic assessments, integrated curriculum, and relationships between Science, Math and Technology Curriculum Frameworks.
*Offered every year. 3 credits. Fieldwork: 10 hrs.*

## Ed 325 Elementary Math

*Prerequisite: Admitted into Stage II*

Emphasizes best practices in mathematics education, the role of conceptual knowledge in understanding mathematics, material development and assessment.
*Offered every year. 3 credits. Fieldwork: 10 hrs.*

## ED 330 Elementary Social Studies and Multiculturalism

*Prerequisite: Admitted into Stage II*

Goals, curriculum, skills, issues, teaching strategies in educating culturally diverse population in a global context.
*Offered every year. 3 credits. Fieldwork: 10 hrs.*

## ED 343 Elementary Reading, Language Arts and Literature

*Prerequisite: Admitted into Stage II*

Stresses interrelationships of oral/written communication; investigates concepts, skills and procedures for teaching literacy and using children's literature in grades 1-6.
*Offered every year. 6 credits. Fieldwork: 20 hrs.*

## ED 351 Principles of Curriculum and Evaluation in the Secondary School

*Prerequisite: Admitted into Stage II*

Basic considerations in curriculum planning and implementation are examined. The role of evaluation and the design and use of assessment instruments are emphasized.
*Offered every year. 3 credits. Fieldwork: 20 hrs.*

## ED 352 Principles of Curriculum and Evaluation in the Middle School

*Prerequisite: Admitted into Stage II*

Examines factors in curriculum planning and implementation at the middle school level. Evaluation models are presented and the design and use of assessment instruments are emphasized.
*Offered every year. 3 credits. Fieldwork: 20 hrs.*

## ED 353 Effective Teaching in the Secondary School

*Prerequisite: Admitted into Stage II*

Considers teaching techniques in various disciplines using a variety of instructional strategies and teaching aids. Analyzes effective classroom management.
*Offered every year. 3 credits. Fieldwork: 25 hrs.*

## ED 354 Effective Teaching in the Middle School

*Prerequisite: Admitted into Stage II*

Considers a variety of instructional designs including team teaching, horizontally integrated curriculum, and effective classroom management.
*Offered every year. 3 credits. Fieldwork: 25 hrs.*

## ED 399 Working with Diverse Families and Children: Birth through Preschool

*Prerequisites: Admitted into Stage II*

Early intervention policies and procedures, developing and implementing Individual Family Service Plans, working with families and children from diverse cultures.
*Offered every year. 3 credits.*

## ED 400 Inclusive Early Childhood Education: Preschool through Grade 2

*Prerequisite: Admitted into Stage III*

Special education law and procedures, modification of programs for English language learners, working with parents, and developing and implementing an anti-bias curriculum.
*Offered every year. 3 credits.*

## ED 405 Classroom Management and Child Guidance Techniques

*Prerequisite: Admitted into Stage III*

Guided analysis/application of principles for students completing a primary practicum. Analysis of behavior, group and individual management strategies.
*Offered every year. 3 credits.*

## ED 410 Special Topics

*Prerequisite: ED 155 or equivalent*

A seminar course on current issues or topics in education.
*Offered every 2 years. 3 credits.*

## ED 424 Seminar: Teaching Practicum

*Prerequisite: Admitted into Stage III*

Implications of the attempts to juxtapose theory and practice are analyzed from the viewpoint of becoming a professional teacher.
*Offered every year. 3 credits.*

## ED 425 Seminar: Applying Educational Principles

*Prerequisite: Admitted into Stage III*

Guided analyses and applications of principles and procedures for students completing their practicum.
*Offered every year. 3 credits.*

## ED 430 Practicum in Early Childhood Education: Grade 1 or Grade 2

*Prerequisite: Admitted into Stage III*

Semester-long 200-hour practicum in first or second grade. Planning, implementing, evaluating learning. Setting includes children with special needs.
*Offered every year. 6 credits.*

## ED 435 Student Teaching in the Elementary School

*Prerequisite: Admitted into Stage III*

Actual teaching in a local school: principles, techniques, and responsibility of planning, executing, and evaluating teaching and learning for a full semester.
*Offered every year. 9 credits. 300 hr. Practicum.*

## Ed 450 Independent Study in Education

*Prerequisite: Consent of instructor*

For the student who wishes to pursue independent study in education, faculty members from other disciplines may be called upon to counsel student.
*Offered every year. 1-6 credits.*

## ED 475 Practicum in Teaching

*Prerequisite: Admitted into Stage III*

Actual teaching in a local school: principles, techniques, and responsibility of planning, executing, and evaluating teaching and learning for a full semester.
*Offered every year. 9 credits.*

## ED 480 Practicum in Teaching Secondary School

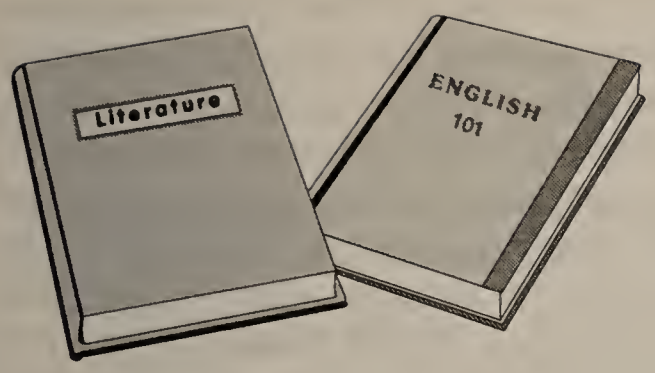
*Prerequisite: Admitted into Stage III*

Full semester teaching experience in a secondary school. Includes planning, teaching and evaluating learning experiences.
*Offered every year. 9 credits. 300 hr. Practicum.*

## ED 485 Practicum in Teaching Middle School

*Prerequisite: Admitted into Stage III*

Full semester teaching experience in a middle school. Includes planning, teaching and evaluating learning experiences.
*Offered every year. 9 credits. 300 hr. Practicum.*




# English
## Department of Languages and Literature

## Faculty

Philip J. Burns, Professor (1990), Department Chair
B.A., Miami University; M.A., Indiana University, Bloomington; Ph.D., University of Rhode Island

James E. Foley, Associate Professor (1999)
B.A., Tufts University; M.A., Ph.D., Indiana University, Bloomington

C. Kenneth Gibbs, Jr., Professor (1970)
A.B., Amherst College; M.A., Rutgers University; M.F.A., Ph.D., University of Massachusetts

Ruth P. Haber, Associate Professor (1989)
B.A., M.A., Ph.D., University of California, Santa Barbara

Dennis Quinn, Associate Professor (1996)
B.A., Worcester State College; M.A., Assumption College; Ph.D., University of Massachusetts

MaryLynn Saul, Associate Professor (1995)
B.S., M.A., Ph.D., Ohio State University

Carey E. Smitherman, Assistant Professor (2003)
B.A., M.A., University of Arkansas; Ph.D., University of Louisville

Richard E. Sullivan, Associate Professor (1968)
A.B., Providence College; M.A., Boston College

Robert L. Walker, Professor (1970)
A.B., Bard College; Ph.D., University of Connecticut

Charles Wasilko, Associate Professor (1970)
A.B., Dickinson College; M.A., Harvard University

Karen Woods Weierman, Assistant Professor (2000)
B.A., Georgetown University; Ph.D., University of Minnesota

Sharon R. Yang, Associate Professor (1999)
B.A., University of Massachusetts, Lowell; M.A., Clark University; Ph.D. University of Connecticut

*English*

The principal objectives of the English program are to help students to communicate clearly, logically and effectively; to use research methods intelligently; to analyze, interpret and enjoy literature; and to develop a perspective on the world that is informed by intensive study of literature and its critical methods. The program also seeks to familiarize students with the classics of world literature, emphasizing the major authors, works and literary movements which distinguish English and American literature. At the same time, the program seeks to introduce students to "alternative voices" in literature, voices that are new to the literary canon or that occupy a literary space outside of it. The intellectual growth of majors is carefully nurtured to ensure that they are prepared for diverse career paths, scholarly research, and success in graduate school. Morever, reflecting the institution's historical mission, the English program provides guidance and support for future teachers of English.

**Requirements for a Major:** 36 credits in English (exclusive of EN 101 and EN 102) which must include the following:

| | |
|---|---|
| EN 210 | Survey of American Literature I **or** |
| EN 211 | Survey of American Literature II |
| EN 220 | Survey of English Literature I |
| EN 221 | Survey of English Literature II |
| EN 255 | Methods of Literary Studies |
| EN 360 | Shakespeare I |

Electives: 21 credits in English (including a minimum of 12 credits in 300 or 400 level literature courses).

Students declaring English as a major must demonstrate a competency in a foreign language at the intermediate level.

**Requirements for a Major in English, Concentration in Writing:** 15 credits in writing courses (exclusive of EN 101 and EN 102) in addition to the 15 credits in Shakespeare (EN 360); surveys (EN 210 or EN 211; EN 220 and EN 221), and EN 255 required of all majors. The remaining 6 credits must be literature electives at the 300-level or above. The 15 credits in writing will be selected from the following:

| | |
|---|---|
| EN 250 | Creative Thinking and Critical Writing |
| EN 251 | Advanced Expository Writing |
| EN 252 | Technical Writing |
| EN 253 | Business Communications |
| EN 256 | Creative Writing: Prose I |
| EN 258 | Creative Writing: Prose II |
| EN 260 | Creative Writing: Poetry I |
| EN 262 | Creative Writing: Poetry II |
| EN 266 | Journalism: Practice and Techniques |
| EN 267 | Journalism: Advanced Newswriting |
| EN 268 | Journalism: Feature Writing |
| EN 269 | Journalism: Interpretive Reporting |
| EN 270 | Journalism: Editing |
| EN 271 | Journalism: Workshop |
| EN 281 | Web Authoring and Publication |
| EN 411 | Theory and Teaching of Writing |
| EN 415 | Technology and the Teaching of Writing |
| CM 366 | Scriptwriting |

A 3-6 credit internship in writing, whether in English (EN410 or EN 475) or other languages (FR 475 or SP 475)

**Women's Studies:** English majors may elect an interdisciplinary concentration in women's studies. They must complete the requirements for the standard English major. They must have 15 credits in women's studies courses, with the English courses among them counting toward the major. For more information, see the Women's Studies section of this catalog.

**Requirements for a Minor**: 18 credits in English (exclusive of EN 101 and EN 102) which must include the following:

EN 210 Survey of American Literature I **or**
EN 211 Survey of American Literature II
EN 220 Survey of English Literature I
EN 221 Survey of English Literature II
English electives: 9 credits

# The Writing Center

Worcester State College's Writing Center is located in Sullivan 302. Staffed by graduate assistants and peer tutors, the Writing Center's offerings include individual writing tutorials for undergraduate and graduate students; reference material and workshops to help candidates prepare for the Massachusetts Teacher Test; writing across the curriculum resource material for Worcester State College faculty; and online tutorials for a wide range of technology-based subjects.

The Writing Center is fully connected to the campus network and the World Wide Web. The Worcester State College OWL (Online Writing Lab), the Writing Center's online community, hosts a varied collection of reference materials useful for both the academic and business writer. In addition, faculty, students, and members of the greater Worcester community can take advantage of the Writing Center's virtual classroom, where assignments and writing samples can be submitted online for feedback and support. Users who cannot attend a session at the Writing Center can chat online with a member of its staff, and email requests are normally processed within one working day.

Sessions with Writing Center staff can be arranged on an appointment, drop-in, or online basis, and all services are offered at no charge. For more information, visit Writenet at the following web address: http://wwwfac.worcester.edu/owl.

**English Honor Society:**

Lambda Iota Tau, an international honor society in literature, is available to outstanding junior and senior English majors and minors.

# English Courses (Undergraduate)

### EN 101 English Composition I

Instruction and practice in the process of composing expository essays. Emphasis on planning, drafting, revising and editing. [Required of all students unless exempted by the Languages and Literature Department.]
*Offered every year. 3 credits.*

### EN 102 English Composition II

A continuation of EN 101. Emphasis on critical thinking, stylistic analysis, argumentation, research and documentation. [Required of all students unless exempted by the Languages and Literature Department.]
*Offered every year. 3 credits.*

### EN 105 Introduction to Literature

A critical introduction to the principal genres of literature: poetry, drama, and fiction.
*Offered every year. 3 credits.*

### EN 130 Ancient Classics of Western Literature

Greek and Roman literary masterpieces in translation, including Homer, Greek tragedy, Plato, Virgil and Roman comedy and satire.
*Offered every 2 years. 3 credits.*

### EN 131 Great Works of Western Literature, Medieval to Modern

Continental masterpieces of the last millennium in translation by such writers as Dante, Cervantes, Voltaire, Dostoevsky, Baudelaire, and Kafka.
*Offered every 2 years. 3 credits.*

### EN 132 World Literature: Survey of Asian, African and Latin American Literature

Representative poems, stories, plays, both ancient and modern, from Asia, Africa, and Latin America.
*Offered every year. 3 credits.*

### EN 140 Introduction to Poetry

Examination and appreciation of the techniques and types of poetry including the sonnet, the pastoral, the mock heroic, and the ode.
*Offered every year. 3 credits.*

### EN 145 Introduction to Drama

Theories and development of tragedy and comedy; plays of Sophocles to Eugene O'Neill as illustrations of these and related genres.
*Offered every year. 3 credits.*

### EN 150 The Short Story

Introduction to the art of the short story through analysis of representative works.
*Offered every year. 3 credits.*

### EN 152 The Novelette

The major practitioners of the novelette over the past century: Conrad, Mann, Kafka, Dostoyevsky, and others.
*Offered every 3 years. 3 credits.*

### EN 156 Mythology

Myths and legends of ancient Greece and Rome which form a part of the classical tradition in English literature.
*Offered every year. 3 credits.*

### EN 158 Science Fiction

The nature and function of nineteenth- and twentieth-century science fiction literature: Wells, Verne, Asimov, Bradbury, and others.
*Offered every 2 years. 3 credits.*

### EN 160 The Literature of the Bible

Biblical writings. Emphasis will be placed on the Old Testament.
*Offered every 2 years. 3 credits.*

### EN 164 Fantasy, Faerie and Folk

Recurrent themes, literary characteristics, and structure of folktales, faerie and fantasy.
*Offered every 2 years. 3 credits.*

### EN 167 Literature and Human Rights

An analysis of international creative writing dealing with the subject of human rights. Resource persons from different fields will be utilized.
*Offered every 3 years. 3 credits.*

### EN 168 Film and Literature

An examination of the fundamental, rhetorical techniques of film and literature to determine the similarities of and differences between the two forms of expression.
*Offered every 2 years. 3 credits.*

### EN 169 Ethnic Literature in the U.S.

Study of ethnic Literature in the U.S., focusing on African-American, Asian-American, Latino, and Native American writers
*Offered every year. 3 credits*

### EN 170 The Search for Identity: Literature of Self-Discovery

Understanding the nature and power of fiction, the relation between problems of individual identity, and the operation of the imagination.
*Offered every 3 years. 3 credits.*

### EN 172 Women and Literature

Explores basic issues and problems in literature by and about women.
*Offered every 2 years. 3 credits.*

### EN 174 Women Poets

A close reading and analysis of poetry written by women from a historical as well as a contemporary feminist perspective.
*Offered every 3 years. 3 credits.*

### EN 190 Special Readings in Literature

An introductory literature course responsive to current interests or controversies.
*Offered every year. 3 credits.*

### EN 210 Survey of American Literature I

*Prerequisite: EN 102*

American literature, beginnings to the Civil War; colonial and federal periods, and the transcendentalists.
*Offered every year. 3 credits.*

### EN 211 Survey of American Literature II

*Prerequisite: EN 102*

American literature since the Civil War; naturalism and realism.
*Offered every year. 3 credits.*

### EN 220 Survey of English Literature I

*Prerequisite: EN 102*

The development of English literature from the beginnings to 1798. Required of all English majors.
*Offered every year. 3 credits.*

### EN 221 Survey of English Literature II

Prerequisite: EN 102

The development of English literature from 1798 to the present. Required of all English majors.

*Offered every year. 3 credits.*

### EN 230 Environmental Themes in Literature

This class explores environmental issues as presented in poetry, essays and novels, including such writers as Thoreau, Hemingway and Ann Tyler.
*Offered every 3 years. 3 credits.*

### EN 250 Creative Thinking and Critical Writing

This course promotes critical and creative thinking through exploring viewpoints of different professions, cultures and eras in various textual forms.
*Offered every year. 3 credits.*

### EN 251 Advanced Expository Writing

*Prerequisite: EN 102*

Instruction and practice in writing expository essays. Analysis of selected readings on a common theme or subject area.
*Offered every 3 years. 3 credits.*

### EN 252 Technical Writing

*Prerequisite: EN 102*

Focuses on how to write and produce basic documents, from research and progress reports to brochures and manuals.
*Offered every year. 3 credits.*

### EN 253 Business Communications

*Prerequisite: EN 102*

A consideration of accepted business communication conventions; correspondence, memoranda, survey reports, proposals, interim reports, and project reports. [Open to Business Administration majors only.]
*Offered every year. 3 credits.*

### EN 255 Methods of Literary Studies

Introduction to critical methods of interpreting literature through examination of works by major authors.
*Offered every year. 3 credits.*

### EN 256 Creative Writing: Prose I

*Prerequisite: EN 102*

An opportunity to develop the student's writing ability and critical sense; work of students and professional authors will be analyzed.
*Offered every year. 3 credits.*

### EN 258 Creative Writing: Prose II

*Prerequisite: EN 102*

Continuation of EN 256; instruction in composing various types of prose fiction. EN 256 is not required as a prerequisite.
*Offered every 2 years. 3 credits.*

### EN 260 Creative Writing: Poetry I

*Prerequisite: EN 102*

Developing the student's skill in the creation of poetry; attention to contemporary trends in American poetry.
*Offered every year. 3 credits.*

### EN 262 Creative Writing: Poetry II

*Prerequisite: EN 102*

Conversation with practicing poets; preparation of a small booklet of poems. EN 260 is not required as a prerequisite.
*Offered every year. 3 credits.*

### EN 266 Journalism: Practice and Techniques

*Prerequisite: EN 102*

Training in developing, reporting, writing, and editing straight news, feature, profile, and interpretive stories.
*Offered every year. 3 credits.*

### EN 267 Journalism: Advanced Newswriting

*Prerequisite: EN 102*

Provides advanced training in the development and writing of straight news stories.
*Offered every 3 years. 3 credits.*

### EN 268 Journalism: Feature Writing

*Prerequisite: EN 102*

Provides advanced training in finding, researching, developing, and writing feature stories for newspapers and magazines.
*Offered every 3 years. 3 credits.*

### EN 269 Journalism: Interpretive Reporting

*Prerequisite: EN 102*

Provides advanced training in developing and writing profiles and interpretive stories.
*Offered every 3 years. 3 credits.*

### EN 270 Journalism: Editing

*Prerequisite: EN 102*

Training in copy selection, copy editing, story placement, headline writing, layout, and use of style books.
*Offered every 3 years. 3 credits.*

### EN 271 Journalism Workshop

*Prerequisite: EN 102*

Provides lab sessions in all aspects of journalism for advanced writers; emphasis on publication.
*Offered every 3 years. 3 credits.*

### EN 281 Web Authoring and Publication

An introduction to web authoring and publication, with special emphasis on the conventions of digital discourse.
*Offered every 2 years. 3 credits.*

### EN 300 History of the English Language

*Prerequisite: EN 102*

A study of the origins of the English language from Old English through Middle English to the present.
*Offered every year. 3 credits.*

### EN 302 Medieval Literature

The course exams genres in medieval literature, such as drama, poetry, debate, prose and riddles.
*Offered every 3 years. 3 credits.*

### EN 303 Arthurian Literature

This coures traces the development of the Arthurian legends from their Celtic origins up through the modern period.
*Offered every 3 years. 3 credits.*

### EN 306 The Renaissance

*Prerequisite: EN 102*

The non-dramatic literature of Tudor England; emphasis on More, Wyatt, Sidney, Spenser, the earlier works of Shakespeare, Donne, and Bacon.
*Offered every 3 years. 3 credits.*

### EN 308 Seventeenth-Century Literature

*Prerequisite: EN 102*

Prose and poetry of the era with special attention to the major works of Jonson and Donne.
*Offered every 3 years. 3 credits.*

### EN 310 Eighteenth-Century Literature

*Prerequisite: EN 102*

The major figures of the Enlightenment with particular emphasis on satire: Dryden, Pope, Swift, Johnson, and Boswell.
*Offered every 3 years. 3 credits.*

### EN 312 The English Novel of the Eighteenth Century

*Prerequisite: EN 102*

Purpose, range, and developments in the novel of the eighteenth century: Defoe, Richardson, Fielding, Smollett, Sterne, and others.
*Offered every 3 years. 3 credits.*

### EN 314 The English Novel of the Nineteenth Century

*Prerequisite: EN 102*

Representative nineteenth-century novelists: Austen, Bronte, Dickens, Thackeray, Eliot, Hardy, Conrad, and others.
*Offered every 3 years. 3 credits.*

### EN 316 The Modern British Novel

*Prerequisite: EN 102*

Selected works of major British novelists from 1900 through World War II: Joyce, Lawrence, Woolf, Forster, and others.
*Offered every 3 years. 3 credits.*

### EN 318 Romantic Literature

*Prerequisite: EN 102*

Poetry and prose with special emphasis on the poetry of Blake, Wordsworth, Coleridge, Shelley, Byron, and Keats.
*Offered every 3 years. 3 credits.*

### EN 320 Victorian Literature

*Prerequisite: EN 102*

Study of selected prose and poetry of the major writers of the Victorian period.
*Offered every 3 years. 3 credits.*

### EN 324 Continental Novelists I

*Prerequisite: EN 102*

European novelists of the nineteenth and twentieth centuries including Dostoyevsky, Mann, Camus, and others.
*Offered every 3 years. 3 credits.*

### EN 330 Modern Drama

*Prerequisite: EN 102*

The theories and development of realism, naturalism, expressionism, folk drama; representative plays from Ibsen to O'Neill.
*Offered every 3 years. 3 credits.*

### EN 332 Contemporary Drama

*Prerequisite: EN 102*

The dramatic works and aesthetics of Beckett, Pinter, and other selected dramatists of the contemporary theatre.
*Offered every 3 years. 3 credits.*

### EN 334 Modern Poetry

*Prerequisite: EN 102*

Close analysis of the development of British and American poetry from the late nineteenth century to World War II.
*Offered every 3 years. 3 credits.*

### EN 336 Contemporary Poetry

*Prerequisite: EN 102*

Concentrates on poets whose major work was written after World War II; special attention to authors presently writing and publishing.
*Offered every 3 years. 3 credits.*

### EN 338 Contemporary Novel

*Prerequisite: EN 102*

American and English novels after World War II, with emphasis on living novelists.
*Offered every 3 years. 3 credits.*

### EN 340 Twentieth-Century Literature

*Prerequisite: EN 102*

A survey of the major trends in twentieth-century poetry, drama, and fiction.
*Offered every 3 years. 3 credits.*

### EN 342 The American Novel I

*Prerequisite: EN 102*

The American novel from its origin to 1890; Brown, Cooper, Melville, Hawthorne, and others.
*Offered every 2 years. 3 credits.*

### EN 344 The American Novel II

*Prerequisite: EN 102*

The American novelists from 1890 to World War II: Crane, Wolfe, Dreiser, Anderson, Hemingway, Steinbeck, and others.
*Offered every 2 years. 3 credits.*

### EN 345 Women in American Literature

*Prerequisite: EN 102*

The American woman as she is portrayed in fiction, non-fiction, and poetry.
*Offered every 3 years. 3 credits.*

### EN 346 History of Literary Criticism

*Prerequisite: EN 102*

An historical introduction to speculation concerning the nature and function of literature: selections from Plato to Frye.
*Offered every 3 years. 3 credits.*

### EN 350 Chaucer

*Prerequisite: EN 102*

A study of the development of Chaucer's versatile art and writings as expressive of the later Middle Ages.
*Offered every 3 years. 3 credits.*

### EN 360 Shakespeare I

*Prerequisite: EN 102*

Major plays. Required of all English majors.
*Offered every year. 3 credits.*

### EN 362 Shakespeare II

*Prerequisite: EN 102*

A continuation of EN 360; includes the sonnets and less familiar plays.
*Offered every 2 years. 3 credits.*

### EN 380 Milton

*Prerequisite: EN 102*

A study of Milton's work from early poems to *Paradise Lost, Paradise Regained, and Samson Agonistes*; includes some prose pamphlets.
*Offered every 3 years. 3 credits.*

## EN 390 The Irish Literary Revival

*Prerequisite: EN 102*

The Irish literary renaissance; the origins of the movement; includes Joyce, Yeats, Synge, O'Casey, Lady Gregory, and others.
*Offered every 3 years. 3 credits.*

## EN 400 Seminar

*Prerequisite: EN 102*

Student presentations on individual figures and particular problems in literature.
*Offered every year. 3 credits.*

## EN 410 Writing Practicum

*Prerequisite: EN 102*

Training and practice in one-to-one assistance for students' writing for any course, stage, or specific need.
*Offered every year. 3-6 credits.*

## EN 411 Theory and Teaching of Writing

Study of current writing theory and classroom applications at the middle school, secondary and college levels.
*Offered every 2 years. 3 credits.*

## EN 415 Technology and the Teaching of Writing

*Prerequisite: EN 102 and Permission of Instructor*

An introduction to the use of computer and internet technologies in the teaching of writing.
*Offered every 3 years. 3 credits.*

## EN 425 Independent Study in English

*Prerequisite: EN 102, Consent of instructor*

An opportunity for further study in a special field of interest under faculty supervision.
*Offered every year. 1-6 credits.*

## EN 450 Special Topics in English

*Prerequisite: EN 102*

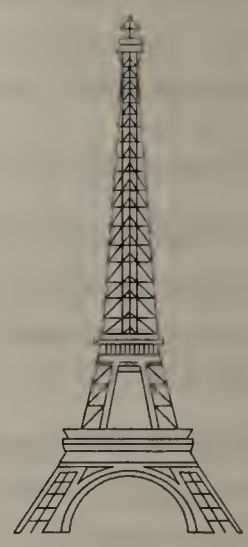
Specific content will vary in response to particular student and faculty interests.
*Offered every year. 3 credits.*

## EN 475 Internship in English

*Prerequisite: EN 102, Consent of instructor*

Provides majors the opportunity to gain practical experience in areas where they may apply acquired critical and writing skills.
*Offered every year. 3-6 credits.*

# French
## Department of Languages and Literature



## Faculty

Judith Jeon-Chapman, Associate Professor (1993)
B.A., College of St. Benedict; M.A., Ph.D., University of Washington

Courses in French are designed for students whose interests and career plans have an international or multi-ethnic focus. Students who minor in a French will develop listening, speaking, reading, and writing fluency and will study the culture, history and literature of the people who use the language. Alpha Mu Gamma, a national honor society in foreign languages, recognizes excellence in the study of foreign languages. Any Worcester State College student who receives two "A's" in French at any level and a 3.0 cumulative G.P.A. is eligible to join.

**Requirements for a Minor in French:** 18 credits in French including:
FR 100-299, beginning and intermediate courses (12 credits maximum)
FR 300-499, advanced courses (6 credits minimum)
(Students with advanced knowledge of French should begin at 300-level)

## French Courses

### FR 101 Beginning French I

Fundamentals of pronunciation, patterns of speech, basic structures. Develops listening, speaking, reading and writing skills.
*Offered every year. 3 credits.*

### FR 102 Beginning French II

*Prerequisite FR 101 or equivalent.*
*Offered every year. 3 credits.*

### FR 210 Intermediate French I

*Prerequisite: FR 102 or equivalent*

Review of fundamentals and presentation of more complex grammatical features; development of conversational skills; selected readings, written and oral composition.
*Offered every year. 3 credits.*

### FR 211 Intermediate French II

*Prerequisite: FR 210 or equivalent*

Continuation of FR 210.
*Offered every year. 3 credits.*

### FR 321 Advanced French Composition I

*Prerequisite: Two FR 200 level courses or equivalent*

Practice in diverse composition styles as well as review of grammar, and introduction to reading French texts. Conducted in French.
*Offered every 3 years. 3 credits.*

### FR 322 Advanced French Grammar

*Prerequisite: Two FR 200 level courses or equivalent*

Intensive review of grammar, practice in composition and introduction to reading French texts. Conducted in French.
*Offered every 3 years. 3 credits.*

### FR 323 Advanced French Conversation

*Prerequisite: Two FR 200 level courses or equivalent*

Development of fluency and accuracy, free discussions, prepared oral presentations, practical exercises in oral expression. Conducted in French.
*Offered every 3 years. 3 credits.*

### FR 331 General French Civilization

*Prerequisite: Two FR 200 level courses or equivalent*

Significant aspects of French history, geography, and cultural achievements to World War I. Conducted in French.
*Offered every 3 years. 3 credits.*

### FR 341 Introduction to French Literature

*Prerequisite: Two FR 200 level courses or equivalent*

Major periods and genres of French literature. Conducted in French.
*Offered every 3 years. 3 credits.*

### FR 342 Survey of French Literature I

*Prerequisite: Two FR 200 level courses or equivalent*

Selections from the epic, drama, lyric poetry, and the major prose writers to major authors of the classical period. Conducted in French.
*Offered every 2 years. 3 credits.*

### FR 344 Survey of French Literature II

*Prerequisite: Two FR 200 level courses or equivalent*

Major authors of the eighteenth and nineteenth centuries. Conducted in French.
*Offered every 2 years. 3 credits.*

### FR 346 Twentieth Century French Literature

*Prerequisite: Two FR 200 level courses or equivalent*

Major novelists, dramatists, and poets from the turn of the century to the present. Conducted in French.
*Offered every 3 years. 3 credits.*

### FR 401 Seminar in French Studies

*Prerequisite: For advanced students*

Special topics in French language, literature or civilization.
*Offered every 3 years. 3 credits.*

### FR 402 Independent Study in French

*Prerequisite: Consent of instructor*

Study of a special topic. Both content and eligibility subject to departmental guidelines and approval.
*Offered every year. 1-6 credits.*

### FR 403 Teaching Assistantship in French

*Prerequisite: FR 321 or instructor's approval. Suggested for advanced students of French.*

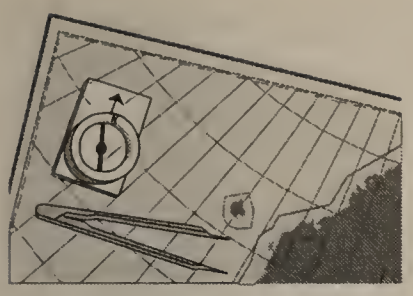
Teaching Assistants in French will regularly attend the beginning or intermediate-level classes to which they are assigned to assist the professor.
*Offered every year. 3 credits.*

### FR 475 Internship in French

*Prerequisite: Consent of instructor and department.*

Provides majors practical experience in areas where speaking, reading, and writing skills may be applied.
*Offered every year. 3 credits.*

***Note:*** *Courses in other foreign languages such as German, Latin, Russian, Chinese, Hebrew and Arabic are offered when demand warrants and staffing permits.*



# Geography and Earth Sciences
## Department of Physical and Earth Sciences

## Faculty

Jennifer A. Saleem Arrigo, Assistant Professor (2004)
B.A., Ph.D., Boston University

Patricia A. Benjamin, Assistant Professor (2001)
B.A., University of Oregon; M.L.S., University of Maryland; M.A., Ph.D., Clark University

William J. Hansen, Assistant Professor (2005)
B.A., State University of New York at Albany; M.A., Hunter College; Ph.D., City University of New York Graduate Center

Richard G. Hunt, Associate Professor (1969), Department Chair
B.S., Indiana University of Pennsylvania; M.S., Southern Connecticut State University

James V. Lyons, Associate Professor (1989)
B.A., George Washington University; M.S., State University of New York, New Paltz; M.A., State University of New York, Binghamton; M.A., Ph.D., Clark University

Michael C. Wizevich, Assistant Professor (2005)
B.S., Cornell University; M.S., University of Illinois at Chicago; Ph.D., Virginia Tech

Geography interprets and explains the occurence, distributions and interactions of natural and cultural features on the earth. Thus it is both a natural and social science. It examines people and the environment they occupy, and concentrates on two essential questions: *where* are things located, and *why* are they located where they are? The program in Geography and Earth Sciences offers a number of courses leading to a major in the field of geography. A minor in Geography and a concentration in Environmental Studies are available to interested students.

Gamma Theta Upsilon, the international honor society in geography, is available to distinguished students. Prospective members must have completed at least three courses in Geography/Earth Science with a B average in those Geography/Earth Science courses, and shall have completed at least three semesters of college courses. There is no requirement that the prospective member be a major or minor in Geography/Earth Science.

**Requirements for a Major:** 30 credits including

| | |
|---|---|
| GS 101 | Physical Geography |
| GE 102 | Cultural Geography |
| GS 140 | Physical Geology |
| GE 210 | Geography of North America |
| GE 216 | Geographic Information Systems I |

At least one advanced course (200+) in each of the following areas:
Physical Geography
Cultural Geography
Regional Geography and
Two geography electives

No more than 45 credits will be accepted toward the degree without the consent of the department.

**Requirements for a Minor:** 18 credits including
GS 101 Physical Geography
GE 102 Cultural Geography
GE 210 Geography of North America
One elective each in physical, cultural, and regional geography

**Requirements for a Concentration in Environmental Studies:** 42 credits

Students in the Environmental Studies Concentration must take the following courses, required of all geography majors:

| | | | |
|---|---|---|---|
| GS 101 | Physical Geography | 3 credits | |
| GS 140 | Physical Geology | 4 credits | |
| GS 102 | Cultural Geography | 3 credits | |
| GS 216 | Geographic Information Systems I | 4 credits | |
| GE 210 | Geography of North America | 3 credits | |
| Advanced regional course | | 3 credits | Subtotal: 20 credits |

In addition, Environmental Studies concentrators must take the following:

| | |
|---|---|
| GE 258 Global Environmental Change | 3 credits |
| Two courses in Physical Geography or GIS (200 level or above) | 6-8 credits |

Three of the following: 9 credits

| | |
|---|---|
| GS 305 | Geological Hazards |
| GE 308 | Environment and Development |
| NS/GS 260 | Energy Conservation and Management |
| UR/GE 360 | Environmental Systems & Public Policy |
| UR/GE 361 | Public Policy & Environmental Issues |
| GE/GS 470 | Selected Topics (with approval) |

One of the following: 4 credits

| | |
|---|---|
| GE/GS 410 | Independent Study in Geography |
| GE/GS 450 | Readings and Directed Research |
| GE/GS 460 | Geography Internship |

Total 42-44 credits

# Geography and Earth Sciences Courses

### GS 101 Physical Geography

Geographic principles of location; characteristics of landforms, soil, climate, minerals, water, flora, and fauna.
*Offered every year. 3 credits.*

### GE 102 Cultural Geography

Environmental relationships, cultural changes in regions; location, characteristics of various cultural elements: population, economic activities, languages, religions, urbanization, and political patterns.
*Offered every year. 3 credits.*

### GS 105 New England Landscape

Analysis of the geological background of New England's distinctive scenery. Includes study of bedrock base, glacial features, coastline, and mountains.
*Offered every year. 3 credits.*

### GE 110 World Regional Geography I

This survey examines characteristics of land and peoples of Eurasia.
*Offered every year. 3 credits.*

### GE 111 World Regional Geography II

This survey examines characteristics of land and peoples of Africa, Oceania and the Americas.
*Offered every year. 3 credits.*

### GE 135 Geography of Wine

The cultivation of grapes and their manufacture into wine. Regional stress. Western Europe and the United States.
*Offered every year. 3 credits.*

### GS 140 Physical Geology

Introduction to geological science: rocks and minerals, internal and external geologic processes, topographic map and air photo analysis, local field study. Three lecture hours and two laboratory hours per week.
*Offered every year. 4 credits.*

### GS 165 Geology of the National Parks

Examination of the natural features located in each park and of the earth processes which formed them.
*Offered every 2 years. 3 credits.*

### GE/GS 195 Special Topics

Introductory course to be offered on a trial basis. Topic to be announced in advance
*Offered every 3 years. 3 credits.*

### GS 205 Meteorology

Weather elements, frontal storms, air mass characteristics, winds, temperature, precipitation, and pressure patterns throughout the world; weather instruments, forecasting.
*Offered every year. 3 credits.*

### GE 210 Geography of North America

Manufacturing, agriculture, and trade in the various regions of the continent. Land utilization as affected by the physical environment.
*Offered every year. 3 credits.*

### GS 216 Geographic Information Systems I

*Prerequisite: None*

Introduction to the digital production of maps using *ArcGIS* software.
*Offered every year. 4 credits.*

### GS 220 Earth History

*Prerequisite: GS 140*

Historical evolution of the earth, its surface features, and life forms through geologic time. Emphasis on the North American continent.
*Offered every 2 years. 3 credits.*

### GS 225 Oceanography

The principles of physical, chemical, biological, and geological oceanography.
*Offered every year. 3 credits.*

### GE 230 Geography of Europe

European landforms, people, culture, economics, and problems facing the individual countries.
*Offered every year. 3 credits.*

### GS 235 Climatology

*Prerequisite: GS 101*

Characteristics of the atmosphere; climates of the continents and classification of the world's climates.
*Offered every 3 years. 3 credits.*

### GS 245 Planetary Geology

*Prerequisites: GS 140 or NS 105 or permission of instructor*
Solar system formation and evolution with emphasis on planetary interiors and surface features.
*Offered every 3 years. 3 credits.*

### GE 250 Urban Geography

*Prerequisite: GE 102 or permission of instructor*

World urbanization, location, and central place concepts, economy of cities, land use patterns, urban, physical, and societal environmental problems.
*Offered every 3 years. 3 credits.*

### GS 250 Hydrology

Physical, economic, political, and social problems in water resource planning are considered.
*Offered every 3 years. 3 credits.*

### GE 255 Geography of Africa

African societies and environments.
*Offered every year. 3 credits.*

### GE 258 Global Environmental Change

Introduction to the science, political economy and ethics of global environmental change.
*Offered every year. 3 credits.*

### GE 260 Geography of Latin America

Physical, economic, social, and cultural analysis of the individual countries: historical background to present-day development.
*Offered every 3 years. 3 credits.*

### GE 265 Introduction to Urban and Regional Planning

*Prerequisite: GE 102 or permission of instructor*

Understanding of purpose, function, tools and methodology of urban and regional planning; focus on land-use planning, land-use controls and model plans.
*Offered every 3 years. 3 credits.*

### GE 295 Geography of the Former Soviet Union

*Prerequisite: GE 102*

Analysis of the physical, cultural, socio-economic and political characteristics of the former Soviet Union.
*Offered every 3 years. 3 credits.*

### GS 305 Geological Hazards

*Prerequisite: GS 101 or GS 140*

The modern theory of plate tectonics as an explanation for earthquakes and volcanic eruptions; impact of and societal response to such events.
*Offered every 2 years. 3 credits.*

### GE 308 Environment and Development

*Prerequisite: GE 258 or permission of instructor*

The global ecology of rich and poor. Environmental implications of poverty, economic development, mass consumption, globalization and demographic change.
*Offered every 3 years. 3 credits.*

### GS 310 Geomorphology

*Prerequisite: GS 101 or GS 140*

A study of landscapes and the natural forces that shape them. Influences of human activities and role of climate stressed.
*Offered every 2 years. 3 credits.*

### GS 311 Regional Geomorphology of the United States

*Prerequisite: GS 140 or GS 310*

Study of selected regions of our country with respect to underlying geology and resulting landscape features. Considerable map study included.
*Offered every 2 years. 3 credits.*

### GS 315 Climate Dynamics

*Prerequisite: GS 205 or GS 235 or permission of instructor*

Processes that datermine climate and contribute to its variability.
*Offered every 3 years. 3 credits.*

### GS 318 Geographic Information Systems II

*Prerequisite: GS 216*

Advanced production of digital maps using a GIS vector oriented software.
*Offered every 3 years. 4 credits*

### GS 325 Glacial Geology

*Prerequisite: GS 140*

Glaciers and their dynamics; investigation of the Quaternary Ice Age and its profound effects on world scenery.
*Offered every 2 years. 3 credits.*

### GS 335 Hydrogeology

*Prerequisites: GS 140 or GS 250*

Underground water and its movement. Aquifer identification and test; wells, contamination and remediation, ground water as a geologic agent.
*Offered every 3 years. 3 credits.*

### GS 355 Geographic Information Systems: Analytical Techniques

*Prerequisite: GS 216*

Advanced production and analysis of digital maps and digital remotely sensed images using *Idrisi* Kilimanjaro GIS.
*Offered every 3 years. 4 credits.*

### GE 360 Geography of the Middle East

*Prerequisite: GE 102*

The Middle East: geography, society, economics and political structure.
*Offered every 3 years. 3 credits.*

### GS 365 Climate Change over Earth History

*Prerequisite: GS 140 or GC 235 or GS 315 or permission of instructor*

A record of change climate on Earth; methods used to reconstruct past climates; relevance of past changes to the current climate.
*Offered every 2 years. 3 credits.*

### GE/GS 410 Independent Study in Geography

Opportunity for advanced students to pursue a topic of special interest involving extensive reading, experimentation, and research.
*1-6 credits.*

### GE/GS 450 Readings and Directed Research

*Prerequisites: All department requirements for major fulfilled.*

Directed study on selected topics; open to senior majors.
*3 credits.*

### GE/GS 460 Geography Internship

*Prerequisites: All department requirements for major fulfilled.*

Students assigned to various government and private agencies under joint supervision of agency and faculty.
*1-6 credits.*

### GE/GS 470 Selected Topics in Geography

Topic or subject to be announced in advance; topic to be relevant to student needs and interests and subject to availability of professor.
*Offered every 2 years. 3 credits.*

# Health Sciences
## Department of Health Sciences

## Faculty

Lynn Bloomberg, Associate Professor (1996)
B.A., University of Hawaii; M.Ed., University of Texas; M.P.H., Dr.P.H., University of California at Berkeley

Nancy Brewer, Associate Professor (2000) CHES
B.S., University of Pittsburgh; M.Ed., Ph.D., The Pennsylvania State University

JoAnne Maynard, Assistant Professor (2003)
B.S., Fitchburg State College; M.A., Emerson College; M.P.A., Harvard University; M.P.H., University of Massachusetts; Ph.D., Brandeis University

Helena B. Semerjian, Associate Professor (1966), Chairperson
B.S., M.Ed., Fitchburg State College; M.Ed., Boston University

The Department of Health Sciences offers coursework leading to a Bachelor of Science degree in Community Health or Health Education, with or without teacher certification. Department courses provide basic knowledge and basic practice skills to prepare students interested in pursuing careers in a variety of health service settings, teaching, and as preparation for graduate programs in health and health-related professions. General distribution requirements provide a broad cultural background in the humanities, in the behavioral and social sciences, and in the natural sciences. Membership in a national health honor society, Eta Sigma Gamma, is made available to students who maintain a 3.0 average or better.

## Community Health Major

The goal of the community health program is to prepare health practitioners in the public health disciplines of wellness, health promotion and holistic disease prevention; as well as in community health services through cooperative, multi-disciplinary experiences. Coursework focuses on developing competency in assessing individual/community health needs and planning, implementing, and evaluating community health programs through academic work as well as field work.

**Requirements for the Community Health Major: 45-48 credits**

| | |
|---|---|
| HE 100 | Personal Health |
| HC 350 | Group Process |
| HE 350 | Community Health |
| HE 390 | Environmental Health Education |

HC 400 Epidemiology
HC 415 Community Health Planning and Promotion
HC 425 Research Seminar
HC 450 Practicum in Community Health (3-6 credits)
(total credits in the community health major include 21 units of electives from Community Health or Health Education)

**Required Ancillary Courses for the Community Health Major: 31 credits**
The following courses must be completed with an average of C or better; they may be taken concurrently with major course requirements:

BI 161 Anatomy and Physiology I
BI 162 Anatomy and Physiology II
CH 110 Introduction to General, Organic and Biochemistry I
CH 111 Introduction to General, Organic and Biochemistry II
PS 110 General Psychology I
PS 111 General Psychology II
SO 100 Introduction to Sociology
SO 275 Social and Behavioral Statistics or HC 235 Statistical Applications to Community Health

# Health Education Major

The goal of the program is to prepare graduates to be critical and creative thinkers as well as lifelong learners in the dynamic field of health education. Coursework and fieldwork focus on developing the knowledge, understandings, competencies, and experiences required of professionals teaching health education in a variety of community settings. Worcester State College also offers Initial Licensure for health education programs in middle and secondary education (grades 5-12).

**Requirements for the Health Education Major: (without teacher licensure) 39 credits (minimum)**

HE 100 Personal Health
HE 120 Health and Nutrition
HE 200 Consumer Health
HE 220 Mental Health Education
HE 230 Human Sexuality and Sex Education
HE 400 Department Workshop: Basic First Aid and CPR (1 credit course or non-credit Red Cross/Heart Association Certification)
HE 275 Fitness for Life
HE 350 Community Health Education
HE 385 Drugs and Society
HE 390 Environmental Health
HE 440 Practicum in Health
** Health Electives: 6-9 credits
(n.b. Evening and summer courses may be necessary)

**Required for Teacher Licensure (64 credits):**

In lieu of above Health electives

PS 215 Psychology of Adolescence

**Middle/Secondary Minor (27 Credits):**

Pre-Practicum (15 Credits)

ED 250 Educational Psychology
ED 251 Foundations of Education
ED 270 Multicultural Education

ED 351/2 Principles and Evaluation
ED 353/4 Effective Teaching

Practicum (12 Credits):

ED 424 Seminar
ED 480/5 Practicum

ED 480/485 Practicum in Teaching (replaces HE 440: Practicum in Health)

**Required Ancillary Courses for the Health Education major: 31 credits**
The following courses must be completed with an average of C or better; they may be taken concurrently with major course requirements:

BI 161 Human Anatomy and Physiology I
BI 162 Human Anatomy and Physiology II
CH 110 Introduction to General, Organic & Biochemistry I
CH 111 Introduction to General, Organic & Biochemistry II
PS 110 General Psychology I
PS 111 General Psychology II
SO 100 Introduction to Sociology
SO 275 Social and Behavioral Statistics or HC 235 Statistical Applications to Community Health

# Health Education Minor

**Requirements for the Health Education minor: 18 credits**

HE 100 Personal Health
HE 120 Health and Nutrition
HE 200 Consumer Health
HE 385 Drugs and Society
Health Electives: 6 credits

# Health Education Courses

## HE 100 Personal Health

Physical, mental, emotional, social, psychological, environmental and spiritual aspects of well-being.
*Offered every year. 3 credits.*

## HE 120 Health and Nutrition

Nutritional needs, weight control, healthy diets, myths, and nutritional aids to better health.
*Offered every year. 3 credits.*

## HE/PE 140 Creative Arts and Health

An experiential and didactic introduction to making connections between the arts process, product and health.
*Offered every year. 3 credits.*

## HE/PE 150 Health and Physical Education for the Teacher (only for Education or Health majors)

The planning, development, implementation and evaluation of comprehensive health education programs
*Offered every year. 3 credits.*

## HE 200 Consumer Health

Current information and guidelines to reliable sources necessary to develop critical and informed consumers of health products and services.
*Offered every year. 3 credits.*

### HE 210 Women's Health Issues

Interactive processes of politics, power and media's influences on research, public health policy and current health issues.
*Offered every year. 3 credits.*

### HE 220 Mental Health Education

Examination of mental health as a variable: its creation and the obstacles to sound mental health and positive self-concept.
*Offered every 2 years. 3 credits.*

### HE 230 Human Sexuality and Sex Education

Focus on the need for and understanding of sex education, along with the process of implementing sexuality education, with emphasis on teacher preparation.
*Offered every 3 years. 3 credits.*

### HE/PE 260 First Aid: Advanced Theory and Skill

Common emergencies, cardiopulmonary resuscitation, auto extrication, and emergency childbirth. Opportunity for instructor rating.
*Offered every 3 years. 3 credits.*

### HE/PE 275 Fitness for Life

Knowledge of health-related fitness components and their effect on total wellness; emphasis on developing personalized fitness program.
*Offered every year. 3 credits.*

### HE/PE 280 Individualized Stress Management and Relaxation

Strategies and techniques for increasing stress resistance based on psychophysiological research.
*Offered every year. 3 credits.*

### HE 320 Aging and Death

*Prerequisite: HE 100*

Health implications revealed as psychological and social surrounding the phenomena of aging and death.
*Offered every 2 years. 3 credits.*

### HE 340 Health Counseling

*Prerequisite: PS 110 or 111*

A study of the counseling implications involved in health. Awareness of the counseling process and referral.
*Offered every 3 years. 3 credits.*

### HE 350 Community Health Education

*Prerequisite: HE 100*

Application of core competencies of community health education with an introduction to theory and program planning. Examination of local health agencies.
*Offered every year. 3 credits.*

### HE 370 Critical Issues in Health

*Prerequisite: HE 100*

An examination of contemporary issues in health that have legal, ethical, moral and professional practice implications.
*Offered every 3 years. 3 credits.*

### HE 385 Drugs and Society

*Prerequisites: BI 161 and BI 162*

Drug use and abuse, and implications for the individual and society.
*Offered every year. 3 credits.*

### HE 390 Environmental Health

*Prerequisite: HE 100*

Examination of the issues affecting the environment and their impact on individual and global health.
*Offered every year. 3 credits.*

### HE 400 Departmental Workshop

Current issues in Health.
*Offered every year. 3 credits.*

### HE 440 Practicum in Health

A field experience for health majors.
*Offered every year. 3 credits.*

### HE 450 Independent Study in Health

Independent learning experiences designed and initiated by health majors.
*Offered every year. 1-6 credits.*

# Community Health Courses

### HC 220 Health Policy

Examination of the process and factors that influence formulation, implementation and modification of health policy in the United States.
*Offered every 3 years. 3 credits*

### HC 228 Health Ethics

Ethical issues in health including genetic research, euthanasia, medical intervention and reproductive technologies as well as professional ethics.
*Offered every 3 years. 3 credits*

### HC 233 Health Care Systems

The health care system with emphasis on issues relating to unequal access to health services and current plans to make change.
*Offered every 3 years. 3 credits*

### HC 234 Multiculturalism and Health

Examination of diverse ethnic/racial and cultural beliefs and practices affecting health and illness.
*Offered every 2 years. 3 credits*

### HC 235 Statistical Applications to Community Health

*Prerequisite: HE 100*

Descriptive statistics, elements of probability theory, and basic ideas of statistical inference applied to health issues.
*Offered every year. 3 credits*

### HC 338 Peer Education Training

*Prerequisite: HE 100*

Emphasis on student development of practical skills to implement programming centered on peer education programs and focused on preventative health.
*Offered every 3 years. 3 credits*

### HC 350 Group Process

*Prerequisite: HE 100*

A didactic and experiential examination of various theories of group dynamics and their application to the facilitation of health-related groups. Research paper.
*Offered every 2 years. 3 credits*

### HC 400 Epidemiology

*Prerequisite: MA 110*

Evaluation of epidemiological principles and techniques of investigation, and measures of incidence, prevalence, and risk as applied to health, morbidity, mortality, and injuries in specific populations.
*Offered every 2 years. 3 credits*

### HC 403 Department Workshop in Community Health

The subject mater of this course will be reflective of the changing issues within the field of community health.
*Offered every year. 3 credits*

### HC 415 Community Health Planning and Promotion

*Prerequisite: HE 100*

Emphasis on community analysis; defining and verifying community health problems and establishing goals and objectives. Research paper.
*Offered every year. 3 credits*

## HC 425 Research Seminar

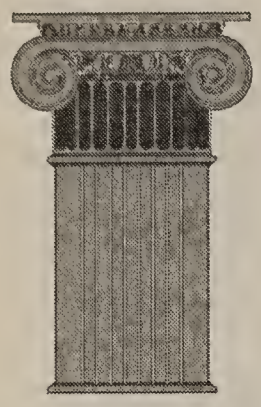
*Prerequisites: 3 HE/HC courses*

Students will be required to produce a proposal for a research study based on a community public health issue.
*Offered every year. 3 credits*

## HC 450 Practicum in Community Health

*Prerequisites: 8 HE/HC courses*

Field experience in which students will select a community health speciality area and spend a semester pursuing their goal through participation. (See HE 440 Practicum in Health).
*Offered every year. 3-6 credits*



# History

## Department of History and Political Science

## Faculty

Joseph P. Baratta, Associate Professor (1999)
Ph.D., Boston University

Bruce S. Cohen, Associate Professor (1965), Department Chair
A.B., M.A., Rutgers University

Clement S. Delaney, Associate Professor (1965)
A.B., M.A., St. Michael's College

Charlotte Haller, Assistant Professor (2004)
Ph.D., University of Wisconsin

Peter Holloran, Associate Professor (1999)
Ph.D., Boston University

Kenneth Marshall, Assistant Professor (2004)
Ph.D., Michigan State University

Najib E. Saliba, Professor (1971)
A.B., Miami University; M.A., Ph.D., University of Michigan

Emmett A. Shea, Professor (1962)
B.S., Ed.M., M.A., Boston University; M.A., Boston College

Robert M. Spector, Professor (1963)
A.B., Ed.M., M.A., Ph.D., Boston University; J.D., Boston College

The purpose of the discipline is to provide students with extensive course offerings to enable them to cope with a complex and ever-shrinking world. The study of history and political science also provides students with a broad background for a wide variety of professional occupational opportunities. Within the History major are concentrations in American Studies, Foreign Service and Labor Studies-Labor Relations. The discipline also offers a minor in Middle East Studies, a pre-law program, an honors curriculum, and a cooperative research course with the American Antiquarian Society. Phi Alpha Theta, the national history honor society, is available to distinguished History majors even if they are not in the honors curriculum.

**Requirements for a Major:** 42 credits including:

| | |
|---|---|
| HI 103 & HI 104 & HI 105 | World Civilization I & II & III |
| HI 111 & HI 112 & HI 113 | US History I & II & III * |

***HI 113 U.S. History III cannot be used to satisfy the foundation requirement for the constitutional history requirement.***

US History electives: 6 credits
European History electives: 6 credits
Non-US, non-European History electives: 6 credits
Other electives in history: 6 credits on 300/400 level

**Requirements for a Major in History, Concentration in Foreign Service:** Programs are individually planned with the student's advisor and prepare individuals for careers in the State Department and the intelligence community. In addition to required courses, students will be encouraged to elect courses in the areas of economics, languages, management, geography, and related fields.

**Requirements for a Major in History, Concentration in American Studies:** Juniors and seniors have the opportunity for independent study and off-campus internships. Students may work as interns in historic museums, historic restorations, historic libraries, archives, or in any one of a great variety of agencies in state, county, and local government. The program also offers internships and independent study opportunities with private sector agencies which have a public interest. The student will also be able to complete the requirements for the history major and the political science minor.

**Requirements for a Major in History, Concentration in Labor Studies-Labor Relations:** This program permits majors in Business Administration, Economics, and History an opportunity to take a multi-disciplinary concentration on labor-related courses in their respective fields and two other disciplines. With this preparation, students might consider career possibilities in labor relations in industry, government, labor organizations, and academia; and undertake graduate study (master's level) that would lead to such careers. Recommended sequences in each discipline are selected in consultation with program coordinators in each field.

**Requirements for a Minor in History:** 24 credits

| | |
|---|---|
| HI 103 & HI 104 & HI 105 | World Civilization I and II and III |
| HI 111 & HI 112 & HI 113 | US History I and II and III |

History electives: 6 credits

**Requirements for a Minor in Middle East Studies:** 18 credits

| | | |
|---|---|---|
| HI | 261 | Middle East History I |
| HI | 314 | Twentieth Century Middle East History |

12 credits recommended by advisor

**Honors Curriculum:** This program is open to qualified majors (juniors and seniors) who display outstanding abilities in historical studies in their first two years and are interested in pursuing a deeper and broader knowledge of the subject.

**Pre-Law Program:** As a special preparation for law school, a minimum of 12 credits in constitutional history and a minimum of 15 credits in political science are required. In addition to the core program, the student may select the remainder of the required hours for the degree from a wide variety of subjects.

# History Courses (Undergraduate)

## HI 103 World Civilization I

Surveys economic, social, political, and intellectual development of world civilizations and their inter-relationship from ancient times to 1500
*Offered every year. 3 credits.*

## HI 104 World Civilization II

Surveys economic, social, political, and intellectual development of world civilizations and their inter-relationship from 1500 to 1914
*Offered every year. 3 credits.*

## HI 105 World Civilization III

Surveys economic, social, political, and intellectual development of world civilizations and their inter-relationship from 1914 to the present.
*Offered every year. 3 credits*

## HI 111 US History I

From colonization through the Civil War era. A study of politics, society, economy, diplomacy, and culture in that period.
*Offered every year. 3 credits.*

## HI 112 US History II

From the Civil War era to 1945. A study of politics, society, economy, diplomacy, and culture in that period.
*Offered every year. 3 credits.*

## HI 113 U.S. History III

1945 to the present
*Offered every year. 3 credits*

## HI 204 History of Science and Technology

Progress of science from the Enlightenment, including applied science or technology from the 19th century. Complements History of Mathematics.
*Offered every year. 3 credits.*

## HI 205 American Indian: Past and Present

The American Indian in history, the encounter between Indian and European civilizations, and the relationship of Indian culture to Indian history.
*Offered every 2 years. 3 credits.*

## HI 206 A History of Warfare

An examination of the role of war in conflict resolution, great battles which changed history, and the impact of technology on war.
*Offered every 2 years. 3 credits.*

## HI 207 American West: Myth and Reality

The historic development of the West, its impact on the American character, and a study of how myths become accepted "fact."
*Offered every 2 years. 3 credits.*

## HI 208 American Immigrant History

Survey of immigration. Topics such as old-world background, impact on US, nativism, cultural pluralism, religion, mobility, family and politics.
*Offered every year. 3 credits.*

## HI 209 Afro-American History

*Prerequisites: HI 111, HI 112*

The role of blacks in American society from the seventeenth century to the present, emphasizing the institution of slavery.
*Offered every 3 years. 3 credits.*

## HI 210 Psychological Foundations of Current History

An attempt to ascertain certain climates of opinion within which far-reaching decisions were both made and responded to.
*Offered every year. 3 credits.*

## HI/PO 211 History of US Foreign Policy I

*Prerequisite: HI 111 or HI 112*

Colonial origins to through the Taft Administration. The sources and development of US foreign policy in that period.
*Offered every year. 3 credits.*

## HI/PO 212 History of US Foreign Policy II

*Prerequisite: HI 111 or HI 112*

From the Wilson Administration to recent times: US foreign policy traditions and the challenges of great power status.
*Offered every year. 3 credits.*

## HI 215 American Intellectual History

*Prerequisites: HI 111, HI 112*

Puritanism, the Enlightenment, romanticism, Darwinism, pragmatism, naturalism, fundamentalism, the liberal-progressive ethic, the new left and neo-conservatism.
*Offered every 3 years. 3 credits.*

## HI 216 Economic History of the US

An introduction to United States economic development; particular attention will be paid to industrialization and the labor force.
*Offered every year. 3 credits.*

## HI 217 US Social History

Survey of social and cultural history. Topics such as family, religion, education, popular literature, architecture, transportation and reform.
*Offered every 2 years. 3 credits.*

## HI/PO 218 US Constitutional History I

The development of constitutional history as seen in decisions of the US Supreme Court and their effects from 1789 to 1921.
*Offered every 2 years. 3 credits.*

## HI/PO 219 US Constitutional History II

Supreme Court decision-making since 1921: federal-state relations, civil liberties, civil rights, loyalty program, labor, rights of defendants.
*Offered every 2 years. 3 credits.*

## HI 223 History of Modern France

*Prerequisite: HI 103 or 104*

Domestic and foreign problems of nineteenth and twentieth century France.
*Offered every 2 years. 3 credits.*

## HI 224 English History I

*Prerequisite: HI 103 or HI 104*

English history from Roman Britain to 1688: the assimilation of the Anglo-Saxons with the Celts, the Norman Conquest, reign of Elizabeth I, Puritan revolt.
*Offered every 2 years. 3 credits.*

## HI 225 English History II

*Prerequisite: HI 224*

English history from the reign of William and Mary to the present. Focus on the expansion of the British Empire and the growth of industrialization.
*Offered every 2 years. 3 credits.*

## HI 231 European Intellectual History I

*Prerequisite: HI 103 or HI 104*

The main theoretical works, philosophic, psychological and scientific, from Plato to the eighteenth century.
*Offered every 3 years. 3 credits.*

### HI 232 European Intellectual History II

*Prerequisite: HI 103 or HI 104*

The main theoretical works, philosophic, psychological and scientific, of the nineteenth and twentieth centuries.
*Offered every 3 years. 3 credits.*

### HI 233 History of Latin America

*Prerequisite: HI 103 or HI 104*

The Spanish Conquest, colonial institutions, wars of independence and development of Mexico, Brazil, and Argentina.
*Offered every 2 years. 3 credits.*

### HI 234/HI 235 Russian History I and II

A study of major political, economic, social, intellectual, and diplomatic currents in Russia, from the Kievan era to Stalin.
*Offered every 2 years. 3 credits each.*

### HI 236/HI 237 Modern Far East History I and II

Civilizations dramatically different from our own, focusing upon China, Japan, and Southeast Asia since 1600.
*Offered every year. 3 credits each.*

### HI 241 English Constitutional History

The development of English constitutional history and principles from the conquest by the Anglo-Saxons to 1776.
*Offered every 2 years. 3 credits.*

### HI 242 History of Early Modern Europe

Forces that shaped Europe since the Reformation: the political, economic, and intellectual context of the external expansion as well as the internal turmoils, such as the Thirty Years War and the European economy to 1789.
*Offered every 3 years. 3 credits.*

### HI 244 American Urban History

The process of accelerating urbanization in America since the nineteenth century: cultural, social, economic and political aspects of urban life.
*Offered every 3 years. 3 credits.*

### HI 245 History of Modern Germany I

The origins and growth of Brandenburg-Prussia; their impact on the rest of Germany from the foundation of the Holy Roman Empire to the emergence of the Second Reich in 1871.
*Offered every 3 years. 3 credits.*

### HI 246 History of Modern Germany II

German economic and political crises from 1870 to the present.
*Offered every 3 years. 3 credits.*

### HI 249 US Labor History I

The relationship between workers, their employers, and the surrounding community between 1815 and World War II.
*Offered every 2 years. 3 credits.*

### HI 250 US Labor History II

Examines the American Labor movement from World War II to the present.
*Offered every 2 years. 3 credits.*

### HI 257 Political Terrorism in Historical Perspective

A comparative approach to the terrorist movements of the nineteenth and twentieth centuries, concentrating on the European groups.
*Offered every 2 years. 3 credits.*

### HI 258 Russia Since the Stalin Era

An analysis of the major political, economic and diplomatic developments in the (former) Soviet Union since the death of Stalin; the formation of the Commonwealth of Independent States.
*Offered every 2 years. 3 credits.*

### HI 259 Crisis Management

A study of the decision-making process regarding crisis situations, i.e., the role of the President, Congress, Intelligence Community and the Military.
*Offered every 3 years. 3 credits.*

### HI 260 Egypt Since 1798

A discussion of Napoleon's occupation of Egypt, the rise of Muhammad 'Ali, Suez Canal, British Occupation, Egyptian Nationalism, Nasser's Revolution.
*Offered every 3 years. 3 credits.*

### HI 261 Middle East History I

The rise and expansion of Islam: the Caliphate, Muslim religion, civilization, and its impact on the West, decline of medieval Islam.
*Offered every 2 years. 3 credits.*

### HI 262 Middle East History II

The Ottoman Empire: expansion, institutions, impact on Europe, decline of the Empire.
*Offered every 2 years. 3 credits.*

### HI 263 US - Middle East Relations

*Prerequisite: HI 103 or HI 104 or HI 111 or HI 112*

Course will discuss the influence the Middle East has had on US policy since US independence to the present.
*Offered every 2 years. 3 credits.*

### HI 264 American Constitutional Law

American Constitutional Law; civil liberties, rights of criminal defendants, Federal-state relations, interpreting the Constitutions.
*Offered every 2 years. 3 credits.*

### HI 270 Writings on Feminism in Historical Perspective

*Prerequisite: HI 103 or HI 104 or HI 111 or HI 112*

This course examines the writings of Euro-American, male and female feminists who promoted the interests of women during the 18th-20th centuries.
*Offered every 2 years. 3 credits.*

### HI 271 Women and Work in Historical Perspective

*Prerequisite: HI 103 or HI 104 or HI 111 or HI 112*

This course undertakes to examine women's work conditions and the opposition to its continuation in Europe and America, 16th-19th centuries.
*Offered every 2 years. 3 credits.*

### HI 273 Ideas of Men and Women in Historical Perspective

*Prerequisite: HI 103 or HI 104 or HI 111 or HI 112*

This survey course focuses on ideas about the sexes which have predominated in the West.
*Offered every 2 years. 3 credits.*

### HI 274 Sex, Marriage and the Family in Historical Perspective

*Prerequisite: HI 103 or HI 104 or HI 111 or HI 112*

This course will undertake a study of courtship, marriage and family life-cycle patterns in England and America during the 19th century.
*Offered every 2 years. 3 credits.*

### HI 275 The History of Childhood: Adults vs. Children in History

*Prerequisite: HI 103 or HI 104 or HI 111 or HI 112*

The central focus of this course is to determine how children were regarded and treated by adults during the 16-19th centuries.
*Offered every 2 years. 3 credits.*

### HI 300 The Early National Period of the US: 1783-1829

*Prerequisite: HI 111*

The Confederation, Constitution, the emergence of political parties, and the rise of American nationality.
*Offered every 3 years. 3 credits.*

### HI 303 Colonial History I

*Prerequisites: HI 111, HI 112*

European background and reasons for American colonization, intercolonial rivalries, formation of the 17th century English colonies. British colonial policy to 1689.
*Offered every 2 years. 3 credits.*

### HI 304 Colonial History II

*Prerequisites: HI 111, HI 112*

Establishment of Georgia, French and Indian Wars, 18th century colonial civilization, causes of the American Revolution, the Revolution to 1783.
*Offered every 2 years. 3 credits.*

### HI 305 Ancient History

*Prerequisite: HI 103*

The history, culture, and politics of ancient Greece and Rome.
*Offered every 2 years. 3 credits.*

### HI 306 Renaissance and Reformation

*Prerequisite: HI 103*

Intellectual and cultural history of Europe from the middle of the thirteenth to the middle of the sixteenth century.
*Offered every 3 years. 3 credits.*

### HI 308 Europe in the Age of Revolution and Nationalism: 1789-1870

*Prerequisite: HI 103 or HI 104*

The French Revolution, Napoleon, Congress of Vienna; nationalism, liberalism, socialism; Second French Empire; German and Italian unification.
*Offered every 2 years. 3 credits.*

### HI 309 Diplomatic History of Modern Europe

*Prerequisite: HI 104*

The foreign policies of the major European nations from 1870 to the present.
*Offered every 2 years. 3 credits.*

### HI 310 Massachusetts History

*Prerequisites: HI 111 or HI 112*

A survey of Massachusetts history from its colonial origins to the present era, including the social, economic, political, constitutional development of state history and culture.
*Offered every year. 3 credits.*

### HI 312 Twentieth Century Europe I

*Prerequisites: HI 103 or HI 104*

The politics and economics of WW I; the pattern of restlessness between the wars in the rise of dictatorship in Germany, Italy, and Spain; the regimentation of economic control.
*Offered every 2 years. 3 credits.*

### HI 313 Twentieth Century Europe II

*Prerequisites: HI 103 or HI 104*

Politics and diplomacy of World War II; the dynamics of the rebirth of Europe since VE Day. The effects of total war upon Europe.
*Offered every 2 years. 3 credits.*

### HI 314 Twentieth Century Middle East History

*Prerequisite: HI 103 or HI 104 or HI 105 or HI 111 or HI 112 or HI 261*

The Young Turk Revolution, division of Ottoman Empire in World War I; rise of new states; the Arab-Israeli conflict.
*Offered every 2 years. 3 credits.*

### HI 316 American-Russian Relations 1781 - Present

*Prerequisite: HI 104 or HI 105 or HI 111 or HI 112*

An analysis of American-Russian relations from their inception to the present, stressing the period since 1917.
*Offered every 2 years. 3 credits.*

### HI 317 The US and East Asia

*Prerequisite: HI 104 or HI 105 or HI 111 or HI 112*

An examination of the American role in East Asia, focusing upon American-Chinese relations, American-Japanese relations, and the Indo-China conflict.
*Offered every 3 years. 3 credits.*

### HI/PO 330 Politics of the Middle East I

*Prerequisite: HI 104 or HI 105 or HI 111 or HI 112 or PO 101 or HI 261 or HI 314*

Discusses governments and politics of eastern Arab countries, Turkey, Iran, and Israel. International rivalries in the area are also discussed.
*Offered every year. 3 credits.*

### HI 333 Women in Latin America

*Prerequisite: HI 233 or equivalent*

Examines the roles of women in diverse societies including Mexico, Brazil and Caribbean nations. Emphasis on the modern period.
*Offered every other year. 3 credits.*

### HI 350 Native American Women

*Prerequisite: HI 205 or equivalent*

Examines Indian women from the time of European contact to the modern era. Emphasizes culture, community and arenas of power.
*Offered every other year. 3 credits.*

### HI 351 Age of Jackson

*Prerequisites: HI 111 or HI 112*

Political, social, economic, and intellectual developments in the second quarter of the nineteenth century.
*Offered every 3 years. 3 credits.*

### HI 352 Civil War and Reconstruction

*Prerequisite: HI 111*

Sectionalism, slavery, and modern industrial warfare as well as their impact on the political and racial fabric of America.
*Offered every 2 years. 3 credits.*

### HI 353 The Age of Reform: 1877-1920

*Prerequisites: HI 111, HI 112*

An analysis of the transformation of America, including reform response to the Gilded Age's industrialization, urbanization, and immigration patterns.
*Offered every 2 years. 3 credits.*

### HI 354 Twentieth Century US History

*Prerequisites: HI 104 or HI 105 or HI 111 or HI 112 or HI 113*

Contemporary American civilization from the Harding Administration into the post-World War II period.
*Offered every year. 3 credits.*

### HI 356 The History of the Cold War

*Prerequisites: HI 104 or HI 105 or HI 112 or HI 113*

The origins of the Cold War, American, Soviet and Chinese foreign policies, arms control negotiations and future prospects.
*Offered every 3 years. 3 credits.*

### HI 366 American Revolutionary Period

*Prerequisites: Consent of instructor*

Basic problems between English colonies and mother country, military aspects of the American Revolution, Confederation Period, making of the Constitution.
*Offered every 2 years. 3 credits.*

### HI 372 Evolution of Women's Rights: Natural Law to Human Rights Law in Historical Perspective

*Prerequisite: HI 103 or HI 104 or HI 111 or HI 112*

This course analyzes the evolution of Women's Rights with emphasis on its role in the twentieth century's International Law of Human Rights.
*Offered every 2 years. 3 credits.*

### HI 400 Independent Study in History

*Prerequisite: Consent of instructor*

Special topics for advanced research and study under the guidance of a faculty member.
*Offered every year. 1 - 3 credits.*

## HI 410 American History and Historians

*Prerequisite: Consent of instructor*

Intensive study of original sources and preparation of a research paper, analysis of major schools of historical thought.
*Offered every 3 years. 3 credits.*

## HI 420 Seminar in American Constitutional History

*Prerequisite: Consent of instructor*

Reading, research and discussion on a specially selected phase of American constitutional development; an original paper of significant scholarship is required.
*Offered every 3 years. 3 credits.*

## HI 430 European History and Historians

*Prerequisite: Consent of instructor*

The study of Europe's major schools of historical thought with emphasis on how Europe's history has been written.
*Offered every 3 years. 3 credits.*

## HI 435 Issues in Modern Middle East

*Prerequisite: HI 261 or HI 314 or HI 330*

Emphasizes reading, research and writing. Students will choose issues, research them, make a class presentation, then develop the presentation into a paper.
*Offered every 3 years. 3 credits.*

## HI 440 Internship in American Studies

*Prerequisite: Consent of instructor*

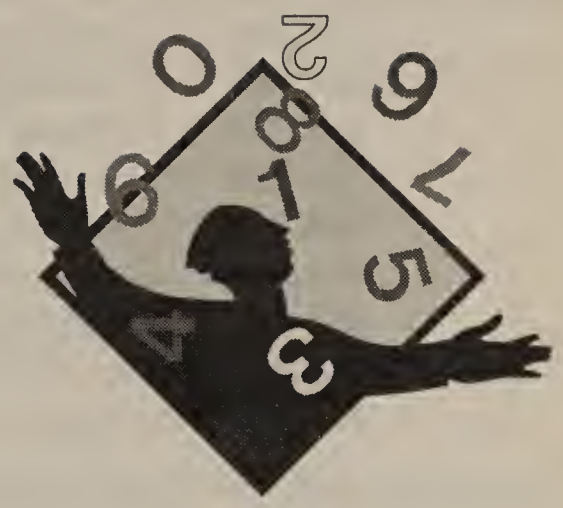
Internships in museums, archives, government agencies, etc. Performing a variety of tasks at beginning professional level in cooperating institutions.
*Offered every year. 3-6 credits.*

## HI 450 Special Topics in History

*Prerequisite: Consent of instructor*

Selected areas of interest to students and instructors.
*Offered every year. 3 credits.*

# Mathematics
## Department of Mathematics




## Faculty

Richard Bisk, Professor (2001), Department Chair
B.A., Drew University; M.S., University of New Hampshire; A.S.A., Society of Actuaries; Ph.D., Clark University

Mary S. Fowler, Assistant Professor (2004)
B.A., New York University; M.S., Ph.D., Carnegie Mellon University

Timothy K. Hagopian, Instructor (2003)
B.S., M.S., Worcester State College

Marshall J. Kotzen, Associate Professor (1969)
B.S., Tufts University; M.S., University of New Hampshire

Raynold Lewis, Associate Professor (1998)
BTH, West Indies College; M.Ed., Worcester State College; Ph.D., Illinois State University

Robert J. Perry, Professor (1964)
B.A., M.A., Ph.D., Clark University

Stephen A. Kunec (2005)
B.S., Lafayette College; M.S., Ph.D., New Jersey Institute of Technology

Hansun T. To, Assistant Professor (2004)
B.A., Rosemont College; M.A., Ph.D., Temple University

Michael Winders, Assistant Professor (2004)
B.S., M.S., Ph.D., University of Iowa

The Department prepares its students for advanced study and research as well as for careers in actuarial science, business and industry, government and teaching. The following programs are used for various mathematics courses: Maple, Converge, Minitab, Matlab, Geometer's Sketchpad, MPP, and DPGraph.

**Admission Requirements For The Mathematics Major:** Good SAT scores, strong high school background with above average grades in mathematics and computer science courses.

Students are encouraged to seek the advice of their faculty advisor in the selection of elective courses that will best prepare them for careers in teaching, actuarial science, engineering and/or architecture.

**Requirements for a Major in Mathematics:** 39 credits

MA 200 Calculus I
MA 201 Calculus II
MA 220 Discrete Mathematics I
MA 260 Linear Algebra
MA 310 Calculus III
MA 320 Ordinary Differential Equations
MA 405 Abstract Algebra
MA 410 Real Analysis
Electives: minimum 12 credits in Mathematics 290-level and above

For Mathematics Teacher Certification, it is recommended that students also take:

MA 302 Probability and Statistics
MA 340 Modern Geometry
MA 360 Number Theory

It is strongly recommended that mathematics majors take one computer science programming language course.

**Requirements for a Minor in Mathematics:** 18 credits

MA 200 Calculus I
MA 201 Calculus II
MA 220 Discrete Mathematics I
Electives: minimum of 7 credits in mathematics 290 and above

# Mathematics Courses

## MA 105 Survey of Mathematics

*Prerequisite: pass accuplacer*
Topics chosen to convey the flavor of mathematics; e.g. logic, set theory, probability, statistics, number theory..
*Offered every year. 3 credits.*

## MA 110 College Algebra

*Prerequisite: pass accuplacer*
Algebraic manipulation; exponents and radicals; linear, quadratic, polynomial, and simultaneous equations; inequalities, graphs, complex numbers, and other topics as time permits.
*Offered every year. 3 credits.*

## MA 130 Mathematical Concepts I

*Prerequisite: pass accuplacer*
Coverage of Mathematical content strands (1) Number Sense and (2) Patterns, Relations and Functions of the Massachusetts Department of Education Curriculum Frameworks. Designed for Elementary Education majors.
*Offered every year. 3 credits.*

## MA132 Mathematical Concepts II

*Prerequisite: MA 130*
Coverage of Mathematical content strands (3) Geometry and measurement and (4) Probability and Statistics of the Massachusetts Department of Education Curriculum Frameworks. Designed for Elementary Education majors.
*Offered every year. 3 credits.*

## MA 150 Statistics I

*Prerequisite: pass accuplacer*
Descriptive techniques, elementary probability, and introduction to statistical inference.
*Offered every year. 3 credits.*

## MA 190 Precalculus

*Prerequisite: MA 110*

Analytic geometry, functions, exponents, logarithms, trogonometric identities and equations, and other topics as time permits.

*Offered every year. 4 credits.*

## MA 200 Calculus I

*Prerequisite: MA 190*

Limits, differentiation and integration of algebraic and trigonometric functions, applications.

*Offered every year. 4 credits.* *Credit will not be awarded for both MA 200 & MA 202*

## MA 201 Calculus II

*Prerequisite: MA 200*

Continuation of MA 200; differentiation and integration of transcendental functions, methods of integration, indeterminate forms, infinite series.

*Offered every year. 4 credits.*

## MA 202 Business Calculus

*Prerequisite: MA 110*

Limits, derivatives of algebraic functions, integration, business applications.

*Offered every year. 4 credits.* *Credit will not be awarded for both MA 200 & MA 202*

## MA 220 Discrete Mathematics

*Prerequisite: MA 190 or MA 200*

Sets, algorithms, directed graphs, relations, matrices, equivalence relations, partial orders, functions, logic, mathematic induction.

*Offered every year. 3 credits*

## MA 260 Linear Algebra

*Prerequisite: MA 220*

Solutions of simultaneous equations by means of matrices and determinants; vector spaces, linear transformations; also, as time permits, characteristic values, bilinear and quadratic forms.

*Offered every year. 3 credits.*

## MA 290 Discrete Mathematics II

*Prerequisite: MA 220*

Counting techniques, permutations, combinations, factorization, modular arithmetic, binary numbers, boolean algebra, recursion and recurrence relations, graphs and trees, elementary linear algebra.

*Offered every year. 4 credits.*

## MA 301 Statistics II

*Prerequisite: MA 150*

Continuation of MA 150; regression, correlation, Chi-square and contingency tables, analysis of variance and sampling techniques; computers may be employed.

*Offered every 3 years. 3 credits*

## MA 302 Probability and Statistics

*Prerequisite: MA 200*

As many as possible of the following topics will be covered: probability, descriptive techniques, inference, correlation, regression, chi-square, ANOVA, contingency tables.

*Offered every year. 3 credits.*

***NOTE: Cannot receive credit for both MA 301 and MA 302, nor for MA 150 and MA 302.***

## MA 303 Mathematical Modeling

*Prerequisite: MA 201*

The development and application of deterministic and probalistic mathematical models from the physical, social and life sciences.

*Offered every 2 years. 3 credits.*

## MA 310 Calculus III

*Prerequisite: MA 201*

Continuation of MA 201: vectors, partial derivatives, multiple integration.
*Offered every year. 4 credits.*

## MA 320 Ordinary Differential Equations

*Prerequisite: MA 310 (may be taken concurrently)*

Techniques for the solution of first and higher order differential equations; also, as time permits, Laplace transforms and series solutions.
*Offered every year. 3 credits.*

## MA 340 Modern Geometry

*Prerequisite: MA 220*

Topics from Euclidean and non-Euclidean geometry.
*Offered every year. 3 credits.*

## MA 350 History of Mathematics

*Prerequisite: MA 220*

Surveys the development of algebra, arithmetic, plane geometry and trigonometry by tracing certain fundamental concepts in mathematics from Euclid to the twentieth century.
*Offered every year. 3 credits.*

## MA 360 Number Theory

*Prerequisite: MA 220*

Divisibility properties of integers, prime numbers, the Euclidean algorithm, the unique factorization theorem, congruences, Diophantine equations, number theoretic functions.
*Offered every year. 3 credits.*

## MA 370 Actuarial Science

*Prerequisite: MA 201*

Theory of compound interest with applications to the solution of interest problems.
*Offered every 3 years. 3 credits.*

## MA 376 Combinatorial Mathematics

*Prerequisite: MA 220*

General counting methods, recurrence relations, graph theory, trees and search.
*Offered every 3 years. 3 credits.*

## MA 380 Probability

*Prerequisite: MA 310*

Methods for interpreting results of experiments; distributions, probability, random variables, binomial probability, normal probability.
*Offered every 3 years. 3 credits.*

## MA 381 Mathematical Statistics

*Prerequisite: MA 380*

Continuation of MA 380; sampling distribution, point and interval estimation, tests of hypotheses, regression, and correlation, analysis of variance, decision theory.
*Offered every 3 years. 3 credits.*

## MA 405 Abstract Algebra

Prerequisite: MA 260
Sets, mathematical systems, groups, rings, fields.
*Offered every year. 3 credits.*

## MA 410 Real Analysis

*Prerequisite: MA 310*

Rigorous treatment of sequences, topology of the real numbers, continuity; also, as time allows, differentiation, integration.
*Offered every year. 3 credits.*

## MA 440 Numerical Analysis

*Prerequisites: MA 201, ability to program in some language*

Computer solutions to mathematical problems including root approximation, integration, differentiation, series, and systems of equations.
*Offered every 3 years. 4 credits.*

## MA 450 Complex Analysis

*Prerequisite: MA 310*

Theory of functions of complex variables; complex numbers, functions, limits and continuity, differentiation, Cauchy-Riemann Equations, analytic functions, Laurent series, residues and poles, conformal mapping.
*Offered every 3 years. 3 credits.*

## MA 497 Selected Topics in Mathematics

*Prerequisite: MA 220*

Selection of topics of mutual interest to students and faculty.
*Offered every 3 years. 3 credits.*

## MA 498 Internship

*Prerequisite: Consent of instructor*

Working in and for an organization where one's skills can be tested in real situations. The purposes: opportunity to gain experience; to increase one's knowledge in various functional areas; and to establish important contacts with an organization.
*Offered every year. 3 credits.*

## MA 499 Independent Study

*Prerequisite: Consent of Instructor*

Offers advanced students an opportunity to examine topics not normally covered in other mathematics courses. Geared to interests of both the student and the instructor.
*Offered every year. 1-6 credits.*

# Music
## Department of Visual and Performing Arts

## Faculty

Kyle D. Martin, Associate Professor (1998)
B.M., Hardin-Simmons University; M.M., D.M.A., Eastman School of Music

Christie B. Nigro, Professor (1989)
B.M., Syracuse University; M.M., Yale University; Ph.D., University of Massachusetts

Robert K. Sahagian, Professor (1968)
B.M., New England Conservatory of Music; M.M., Ph.D., Michigan State University

The music faculty offers courses in the performance, history, the theory of music and applied music. Students are provided with opportunities to perform in ensembles as well as take a wide variety of classroom courses to enhance musical understanding and literacy.

All courses offered in this discipline can be used to fulfill the Fine Arts distribution requirement.

**Requirements for a Minor in Music:** 18 credits in music

## Music Courses

### MU 100 Music Fundamentals

Basic knowledge and theory of notation, major and minor scales, intervals, rhythms and chords.
*Offered every 2 years. 3 credits.*

### MU 102 Applied Music

*Prerequisite: Audition required*

Instruments offered: Piano, voice, clarinet, flute, saxophone, trumpet, trombone, French horn, violin, cello, percussion, classical guitar, organ. Instructors for other instruments may be arranged by special request to Music Department. Private instruction in an instrument or voice, one-half hour lesson per week. Studio fee required. May be repeated.
*Offered every year. 1 credit.*

### MU 115 Music Appreciation

A general survey of masterpieces of the major composers of various periods in the history of music.
*Offered every year. 3 credits.*

### MU 150 Opera

Analysis of the masterworks of the standard operatic repertoire.
*Offered every year. 3 credits.*

## MU 175 Music in America

A survey of music history and literature in America including gospel spirituals, jazz, popular and classical music.
*Offered every 3 years. 3 credits.*

## MU 200 Issues in Music

This course deals with topics of special interest, in both seminars and applied environments at an introductory level.
*Category1. 3 credits.*

## MU 202 Applied Music

*Prerequisite: Audition required*

Note: Please refer to instrument listing for MU 102
Private instruction in an instrument or voice, one-half hour lesson per week. Studio fee required. May be repeated.
*Offered every year. 1 credit.*

## MU 205 Harmony I

*Prerequisite: MU 100*

Harmonization of melodies; basic chord structures, ear-training, harmonic analysis, inversions, nonharmonic tones, figured bass.
*Offered every 3 years. 3 credits.*

## MU 210 Harmony II

*Prerequisite: MU 205*

Harmonization of melodies using primary and secondary chords, harmonic analysis, ear-training, secondary dominants and modulation.
*Offered every 3 years. 3 credits.*

## MU 213 Music Technology of MIDI Systems and Digital Audio

*Prerequisite: MU 100 or knowledge of notation and department consent*

Offers study in MIDI/Digital Audio Systems and electronic music synthesis in a PC environment. Prepares student interested in audio engineering.
*Offered every year. 3 credits.*

## MU 215 Chorus and Music Theory

*Prerequisite: Audition required*

Mixed choral repertoire and performance, covering vocal problems and techniques. Introduction to music theory, rhythms, intervals, basic chordal structures, harmonization. Participation in college chorus required.
*Offered every year. 3 credits.*

## MU 220 Chorus

*Prerequisite: MU 215*

Mixed chorus repertoire. May be repeated.
*Offered every semester. 1 credit .*

## MU 225 Band

*Prerequisite: Audition required*

Study and experience in repertoire and performance. May be repeated.
*Offered every year. 1 credit.*

## MU 226 Band and Music Theory

*Prerequisite: Audition required*

Study and experience in music notation and style of instrumental music. Participation in college band required.
*Offered every year. 3 credits.*

## MU 231 Women in Music

A survey of the role of women in music, particularly the great women composers from Medieval to Contemporary times.
*Category1. 3 credits.*

## MU 234 Music of the Baroque Period

The period 1600-1750 with emphasis on Bach and Handel.
*Offered every 3 years. 3 credits.*

### MU 235 Music of the Classical Period

The period 1750-1827; Haydn, Mozart and Beethoven.
*Offered every 3 years. 3 credits.*

### MU 237 Music in the Elementary School

Guiding growth in rhythmic, notational, and listening experiences. Survey of music method books and materials.
*Offered every 3 years. 3 credits.*

### MU 240 Music of the Romantic Period

A survey of nineteenth-century music beginning with Beethoven.
*Offered every 2 years. 3 credits.*

### MU 245 Twentieth-Century Music

A comprehensive study and general listener's approach to contemporary music beginning with Impressionism.
*Offered every 2 years. 3 credits.*

### CM/MU 250 Music of the Cinema: Spectacle, Splendor, and Spielberg

An introduction to the role, impact, and importance of music in motion pictures from silent movies through contemporary film.
*Offered every 2 years. 3 credits.*

### MU 255 The Golden Era of Piano Music

A survey of piano music beginning with Beethoven and continuing through the Romantic tradition to the early twentieth century.
*Offered every 2 years. 3 credits.*

### MU 260 Symphonic Music

A survey of symphonic music beginning with the classical period.
*Offered every 2 years. 3 credits.*

### MU 265 The Concerto

The concerto from the eighteenth to the twentieth century with emphasis on the development of the piano concerto.
*Offered every 2 years. 3 credits.*

### MU 270 Chamber Music

An examination of chamber music beginning in the Baroque period.
*Offered every 3 years. 3 credits.*

### MU 290 Music History

*Prerequisite: Consent of instructor*

An examination of music history from the Medieval Period to the twentieth century.
*Offered every 3 years. 3 credits.*

### MU 300 Chorale

*Prerequisites: MU 215 or MU 220 and audition*

Study and performance of a cappella choral literature from the Middle Ages to contemporary times. May be repeated.
*Category 1. 1 credit .*

### MU 302 Applied Music

*Prerequisite: Audition required*

Note: Please refer to instrument listing for MU 102
Private instruction in an instrument or voice, one-half hour lesson per week. Studio fee required. May be repeated.
*Offered every year. 1 credit.*

### MU 380 Form and Analysis

*Prerequisite: MU 210*

An introduction to and analysis of the formal structures of music.
*Offered every 3 years. 3 credits.*

### MU 400 Independent Study in Music

*Prerequisite: Consent of instructor*

An opportunity for further study in a special field of interest under faculty supervision.
*Offered every year. 1-6 credits.*

## MU 402 Applied Music

*Prerequisite: Audition required*

Note: Please refer to instrument listing for MU 102
Private instruction in an instrument or voice, one-half hour lesson per week. Studio fee required. May be repeated.
*Offered every year. 1 credit.*

## MU 410 Special Topics in Music

This course will allow members of the music faculty to develop courses of special interest. This would include seminars on specific composers or compositions, in both classroom and applied studio environments.
*Offered every 3 years. 3 credits.*

# Natural Science
## Department of Physical and Earth Sciences

## Faculty

William A. Belanger, Associate Professor (1967)
B.S., Ed.M., Worcester State College; M.N.S., Worcester Polytechnic Institute

The study of natural science affords an opportunity to discover scientific fundamentals as part of a general education. Students can obtain preparation for science teaching, for employment opportunities in other areas where they will benefit from a broad scientific background, and for graduate study.

**Requirements for a Major in Natural Science:** 38 credits including
Two courses in mathematics
Four courses in any one science
Two courses in each of any other two sciences
NS 400 Natural Science Seminar

**Requirements for a Major in Natural Science, Concentration in Nuclear Medicine Technology:** See program description under the Biology Department.

**Requirements for a Minor in Natural Science:** 18 credits, at least 6 in different sciences.

**Requirements for a Concentration in Energy Studies:** This concentration offers opportunities to study Applied Energy Science, and Management and Design.

**Requirements for a Concentration in Earth Science Education (Middle/Secondary):** 52 credits (The 13 credit Natural Science and Mathematics distribution requirement is fulfilled, so the effective number of required credits is 39.)

Mathematics (6 credits)
MA 110 College Algebra
MA 150 Statistics I

Primary Science (13 credits)
GS 101 Physical Geography
GS 140 Physical Geology
GS 205 Meteorology
GS 225 Oceanography

Second Science (8 credits)
- NS 101 Physical Science I
- NS 102 Physical Science II

Additional Required Courses (22 credits)
- BI 106 Introduction to Biology II
- CH 110 Introduction to General, Organic, and Biochemistry I
- GS 316 Geographic Information Systems I
- NS 105 Introduction to Astronomy
- NS 201 Science and Society
- NS 120 Integrated Science I

Required for All Natural Science Majors (3 credits)
- NS 400 Natural Science Seminar

Optional Recommended Courses (13 credits)
- BI 202 Principles of Ecology
- GS 220 Earth History
- GS 245 Planetary Geology
- GS 250 Hydrology

**Requirements for a Concentration in General Science Education (Middle):** 46 credits (The 13 credit Natural Science and Mathematics distribution requirement is fulfilled, so the effective number of required credits is 33.)

Mathematics (6 credits)
- MA 110 College Algebra
- MA 150 Statistics I

Primary Science (14 credits)
- NS 101 Physical Science I
- NS 102 Physical Science II
- NS 105 Introduction to Astronomy
- NS 201 Science and Society

Second Science (8 credits)
- BI 105 Introduction to Biology I
- BI 106 Introduction to Biology II

Third Science (8 credits)
CH 110 & 111 Introduction to General, Organic, and Biochemistry I and II or
Ch 120 & 121 General Chemistry I and II

Additional Required Courses (7 credits)
- GS 101 Physical Geography
- GS 140 Physical Geology

Required for All Natural Science Majors (3 credits)
- NS 400 Natural Science Seminar

Optional Recommended Courses (7 credits)
- GS 205 Meteorology
- NS 120 Integrated Science I

# Natural Science Courses

## NS 101 Physical Science I

Survey of physics and chemistry; evolution of concepts and theories: measurement, gravitation, energy, conservation laws, kinetic molecular theory, wave motion. Three lecture hours and two laboratory hours per week.
*Offered every year. 4 credits.*

## NS 102 Physical Science II

*Prerequisite: NS 101*

Light, electricity, magnetism, fundamentals of chemistry, atoms and molecules, the structure of atoms, quantum theory, and relativity. Three lecture hours and two laboratory hours per week.
*Offered every year. 4 credits.*

## NS 105 Introduction to Astronomy

The tools of the astronomer, the nature of celestial space; star locations, motions, nature, and evolution; the universe; three lectures per week.
*Offered every year. 3 credits.*

## NS 110 Energy in the Modern World

Interdisciplinary course examining the relation of energy and technology to living systems, community and urban life, and current social policy.
*Offered every year. 3 credits.*

## NS 201 Science and Society

Science examined in an historical and social context; the impact of science on man's interpretation of the natural world. For non-science majors.
*Offered every year. 3 credits.*

## NS 260 Energy Conservation and Management

Examination of methods to conserve and manage existing and alternate energy systems and preparation of energy management plans.
*Offered every year. 3 credits.*

## NS 262 Fundamentals of Solar Energy

Analysis of the major concepts and systems for collection, storage, and distribution of solar energy via a problem-solving approach.
*Offered every 3 years. 3 credits.*

## NS 340 Energy Construction Methods and Techniques

*Prerequisite: NS 260*

Drafting and model-making skills needed for site and building planning and construction detailing as related to energy systems.
*Offered every year. 3 credits.*

## NS 400 Natural Science Seminar

*Prerequisite: Consent of department*

Contemporary developments in the natural sciences; technical literature, independent projects or studies, and the preparation and presentation of technical papers.
*Offered every year. 3 credits.*

## NS 410 Independent Study in Natural Science

*Prerequisite: Consent of department*

Opportunity for advanced students to pursue a topic of special interest involving extensive reading, experimentation, and research.
*Offered every year. 1-6 credits.*

## NS 412 Special Topics in Natural Science

*Prerequisite: Consent of department*

Intended for the undergraduate who wishes to undertake study of selected topics in Natural Science of mutual interest to student and faculty.
*Offered every 3 years. 1-6 credits.*

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# Nursing
## Department of Nursing

## Faculty

Kathryn R. Baldor, Instructor (2002)
B.S., University of Vermont; M.A., Assumption College; M.S.N., University of Massachusetts at Amherst

Paula Bylaska-Davies, Instructor (1998)
A.S., R.N., Quincy Junior College; B.S. Nursing, UMass, Amherst; M.S., SUNY–Binghamton

Anne Marie Catalano, Assistant Professor (2002)
B.S., SUNY–Binghamton; M.S., Boston University; Ph.D. Boston College

Carol A. Eliadi, Assistant Professor (2002)
A.D. in Nursing Quinsigamond Community College; BSN, University of Massachusetts, MSN, University of Lowell; Ed.D., University of Massachusetts; J.D., Massachusetts School of Law

Barbara Ann Giguere, Professor (1980)
R.N., Worcester City Hospital School of Nursing; B.S., Worcester State College; M.S., University of Connecticut; Ed.D., University of Massachusetts

Robyn Leo, Assistant Professor (1995)
R.N., Framingham Union Hospital; B.S.N., Worcester State College; M.S.N., University of Connecticut

Helen Rogers, Professor (1994), Department Chair
B.S., Boston College; M.S., Boston University; D.N.Sc., Widener University

Annmarie D. Samar, Associate Professor (1997)
R.N., Quincy City Hospital; B.S., Worcester State College; M.S., University of Rhode Island; Ph.D., University of Massachusetts

Eileen Terrill, Instructor (2002)
R.N., Framingham Union Hospital; B.S., Worcester State College; M.S., A.N.P., University of Massachusetts Graduate School of Nursing at Worcester

Marilyn Tormey, Assistant Professor (2000)
B.S., Regents College; M.S., N.P., UMass Graduate School of Nursing at Worcester; Ph.D., University of California at Los Angeles

In compliance with policy of the Massachusetts State Board of Nursing, all applicants/ students are informed that completion of the BS degree does not guarantee admittance to the registered nurse licensure examination. According to Board Licensure Policy 00-01, any individual convicted of a felony or misdemeanor conviction, and/or who has been disciplined by a licensure/certification body must be evaluated by the Board to determine a licensure applicant's compliance with the "good moral character" licensure requirement established at Massachusetts General Laws, Chapter 112 , section 74 and 74A. Any individual who has been convicted of a felony or misdemeanor conviction, and/or who has been disciplined by a licensure/certification body, or whose ability to practice professional nursing is adversely affected by a physical or mental disability/illness that may endanger the health and/or safety of a person, should seek special advising prior to enrolling in any professional nursing program in Massachusetts. Individuals convicted of certain criminal convictions are permanently excluded from nurse licensure in Massachusetts.

All students accepted into the nursing program are required to sign a release form for periodic CORI (Criminal Offender Record Information) checks requested by the department. This background check is a computerized search to determine if an individual has any convictions, outstanding warrants or pending complaints. The information from these records is confidential and is destroyed once a student graduates. Progression and mandatory clinical placements in the nursing program may be contingent on a satisfactory CORI check. Clinical agencies may independently perform CORI checks on students awaiting placement and do not have to accept a student with an unsatisfactory CORI. The department will not be responsible for alternate clinical placements for students who cannot be placed in an agency related to the background check. Students have an obligation to inform the department if any new complaints occur after the inquiry is obtained.

The Department of Nursing prepares men and women for the roles and responsibilities of professional nursing through an undergraduate program leading to the Bachelor of Science in Nursing and a graduate program leading to a Master of Science in Community Health Nursing.

The program goals of the undergraduate program are as follows:

1. Enhance the offering and synthesis of the concepts and theories from the liberal arts.
2. Foster the interactive process of learning by providing an atmosphere that promotes critical thinking, freedom of expression, independent judgment and intellectual curiosity.
3. Prepare a nurse generalist capable of practicing professional nursing in a variety of settings with individuals, families, and aggregates.
4. Create an attitude of valuing learning as a lifelong process.
5. Provide an educational foundation for graduate study and professionalism.
6. Provide a sensitivity and knowledge base that will promote the care of diverse ethnic and cultural populations.

Accredited by The National League for Nursing Accrediting Commission (61 Broadway 33rd Floor, New York, NY 10006 [212] 363-5555); member of The National League for Nursing (Council of Baccalaureate and Higher Degree Programs), member of the American Association of Colleges of Nursing (AACN), Massachusetts Association of Colleges of Nursing, and full approval status from the Commonwealth of Massachusetts Board of Registration in Nursing. The New England Association of Schools and Colleges, Inc. accredits Worcester State College.

Graduates are eligible to sit for the examination for licensure as a registered nurse (R.N.) in Massachusetts or any other state in the United States. Successful completion of the National Council Licensure Examination in one state qualifies graduates to apply for licensure reciprocity in any other state.

# General Information

The program offers two tracks in the undergraduate major in nursing: **Track One** is for the student who is seeking education in the nursing profession and **Track Two** is for the student who has obtained licensing as a registered nurse and is pursuing a Bachelor of Science in Nursing. One year of clinical practice is preferred for RN applicants.

**Transfer Students:** Students taking general education courses in another college or university are required to contact the Worcester State College Admissions Office regarding matriculation and the transferability of credit. Students will be given a list of recommended courses in which to enroll and helped to plan an entry date that will prevent undue loss of time in completing the degree requirements. All prerequisite courses must be satisfactorily completed by the end of spring semester in order to be considered for the Track One nursing program and by the end of the fall semester for Track Two.

All transfer student applicants for Track One who have previously been enrolled in a nursing program must submit, as part of their application, a letter from the dean or director of the nursing program indicating eligibility status for readmission to that program. Transfer students will be permitted to pursue an undergraduate Nursing major at Worcester State College if they have been enrolled previously in a nursing program and were in good standing in the nursing program when they left.

The number of transfer students admitted to the Nursing major will be determined by the number of qualified continuing Worcester State College freshmen students and the availability of faculty and facilities. Transfer students will be held to the same requirements and standards as those students admitted directly into the College as a Nursing major. In addition, transfer students will be required to interview with a nursing faculty member, provide a writing sample, and take a math quiz as part of the admission process.

Non-nursing majors at Worcester State College wishing to apply to the nursing program must complete a "Change of Major Form." A formal application to the program should be made by February 1.

**Students may only apply two (2) times for admission into the nursing major.**

**Track One –** Prerequisite courses to be satisfactorily completed by the end of the spring semester preceding acceptance into the nursing major:

| | | | |
|---|---|---|---|
| * | BI | 161 & BI 162 | Human Anatomy and Physiology I and II |
| * | CH | 110 & CH 111 | Introduction to General, Organic & Biochemistry I and II |
| * | EN | 101 & EN 102 | English Composition I and II |
| | PS | 110 or PS 111 | General Psychology I or General Psychology II |
| | SO | 100 | Introduction to Sociology |

**COREQUISITE COURSES** to be satisfactorily completed by the end of spring semester sophomore year:

| | | | |
|---|---|---|---|
| * | BI | 204 | Microbiology |
| * | BI | 262 | Pathophysiology |
| | PS | 120 or PS 210 | Human Development or Child Growth & Development |
| | SO | 215 or SO 220 | Medical Sociology, Sociology of the Family or approved Urban Studies course |
| | HE | 120 | Health and Nutrition |

**** Students must achieve a grade of 2.0 in each of these courses. Each course may be repeated only ONCE to obtain minimum required grade. A student not meeting the minimum grade requirement will not be considered for acceptance into or allowed continued progression in the nursing program.***

**COREQUISITE COURSE** to be satisfactorialy completed by the end of the spring semester junior year.

MA 150 Statistics and CH 240 Pharmacology

A student who fails to complete any prerequisite and/or corequisite course on time will remain as a nursing major; however, progression in the nursing program will depend on satisfactory completion of these courses and space availability.

Required Nursing Courses: 48 credits – ***All Nursing courses must be taken in sequence. Students must achieve a cumulative GPA of 2.7 in ALL nursing courses.***

| | | |
|---|---|---|
| NU | 200 | Introduction to Professional Nursing I |
| NU | 210 | Introduction to Professional Nursing II |
| NU | 310 | Nursing Science I |
| NU | 315 | Group Communication Seminar I |
| NU | 340 | Nursing Science II |
| NU | 415 | Group Communication Seminar II |
| NU | 430 | Research Seminar |
| NU | 440 | Nursing Science III |
| NU | 445 | Group Communication Seminar III |
| NU | 450 | Leadership in Nursing |
| NU | 460 | Nursing Science IV |

**Only one nursing course may be repeated to obtain the minimum grade or required GPA and must be repeated within 2 years.**

**Foundation courses, nursing courses, prerequisite and corequisite courses may not be taken pass/fail.**

**Track Two (RN to BS Program)** — RN students interested in Track Two are advised to contact the program coordinator, Dr. Anne Marie Catalano at 508-929-8129, well in advance of their anticipated start date to review the program requirements. Prospective students are asked to bring unofficial copies of all previously completed college courses for that meeting. The three semester nursing sequence starts in the spring semester each year. The admission process into the program consists of two steps:

1. Completion of the application which includes formal matriculation into Worcester State College, and submission of all official transcripts to the Admissions Department. The application can be found on the WSC web site. This step must be completed by December 1 for spring semester enrollment.
2. Admission to the Department of Nursing, which includes an interview with the program coordinator, and completion of the Department of Nursing application. This step must be completed by November 1.

RNs have some flexibility in completing the required coursework. Therefore, it is essential that they meet with the program coordinator.

**Foundation Courses**

*English Composition I & II (EN I may be waived by the English Department)
*Introduction to Statistics MA 150 — ***Must be taken prior to or concurrent with first semester Nursing courses.***
*US Constitution

**Distribution Courses**

Humanities – 4 courses
Social Sciences – 4 courses, including
- *PS 110 or PS 111 General Psychology I or II
- *PS 120 or PS 210 Human Growth or Child Growth and Development
- *SO 100 Introduction to Sociology

Natural Science/Mathematics – 4 courses, one with a lab
Fine Arts – 3 courses
Health Studies – *1 three credit course

*** Course that may not be taken pass/fail.***

**Required Nursing courses** – 29 credits – Students must achieve a grade of 2.7 in each of these courses. Only ONE nursing course may be repeated to obtain minimum grade required.

| | |
|---|---|
| NU 315 | Group Communication Seminar I |
| NU 330 | Introduction to Professional Nursing III |
| NU 335 | Health Assessment |
| NU 340 | Nursing Science II A |
| NU 415 | Group Communication Seminar II |
| NU 430 | Research Seminar |
| NU 450 | Leadership in Nursing A |
| NU 460 | Nursing Science IV A |

**Advanced Standing:** There are two options available for track two students to receive 19 credits for selected nursing and science courses. The first option is by taking advantage of articulation agreements between Worcester State College and certain area community colleges. The second option involves successful completion of NLN Mobility Examinations. If the second option is chosen, the examinations must be completed by November 15, prior to graduation.

The number of students who can be admitted to the program is limited; the College reserves the right to select applicants with the highest academic credentials.

**Clinic Affiliations:** The nursing curriculum provides learning experiences in all major clinical areas and in a variety of health-care institutions and facilities. Among others, clinical sites include: Worcester Medical Center - St. Vincent Hospital, UMass/Memorial Health Care, Day Kimball Hospital, Harrington Memorial Hospital, Fallon Clinic, Whittier Rehabilitation Hospital, Fairlawn Rehabilitation Hospital, VNA of Central Massachusetts, Worcester Department of Public Health, Family Health and Social Services and Milford Hospital.

**Clinical Course Requirements for both Track One and Track Two:**

Prior to registering for a clinical practicum course, students must submit written verification of:

1. Complete physical examination — updated annually — form available from Nursing Department Secretary,
2. Negative result of a tuberculosis skin test or chest X-ray within the previous year. A tuberculosis skin test is required yearly and can be obtained through the WSC Student Health Service,
3. Rubella and Varicella titre level,
4. Two (2) MMR (measles [rubeola], mumps and rubella) vaccines, or one (1) vaccine and titre levels for mumps and rubeola,
5. One dose of tetanus-diptheria vaccine administered within 10 years,
6. Series of three vaccinations for Hepatitis B and titre level,
7. Basic (Adult and Child) CPR certification must be maintained throughout the program,
8. Current professional liability insurance with a 1-3 million dollar limit — renewed annually,
9. RN students must submit a photocopy of current license to practice nursing in the Commonwealth of Massachusetts.

**Student and Nurse Organizations:** The National Student Nurses' Association was established in 1952 to encourage and prepare nursing students to be active nurse leaders. Worcester State College maintains a local chapter of the Student Nurses' Association which is primarily a student led organization that is actively involved in community outreach. Meetings are held in the department and are open to all nursing students interested in attending and participating.

Sigma Theta Tau International, the National Honor Society for Nursing provides leadership and scholarship in practice, education and research to enhance the health of all people. Since 1986, students have been selected for membership into the local chapter of the Iota Phi Chapter-at-Large based on academic and personal criteria.

**Requirements for Graduation:** For the Bachelor of Science Degree with a major in Nursing students must have:

- Completed all nursing courses with a cumulative GPA of 2.7 or higher
- Completed all Nursing Department and College requirements

# Nursing Courses

**(OPEN ONLY TO STUDENTS WHO HAVE BEEN ACCEPTED INTO THE UNDERGRADUATE NURSING MAJOR)**

### NU 200 Introduction to Professional Nursing I

*Prerequisites: BI 161, BI 162; CH 110, CH 111; EN 101, EN 102; PS 110 or PS 111; SO 100; acceptance into Nursing major*
*Corequisites: BI 204, CH 240, PS 120 or PS 210, HE 120*

Philosophy and conceptual framework of the program is introduced. Nursing theory, history and professional practice roles are presented. Medical terminology is introduced as well as introduction to medication calculations.
*Offered Fall semester every year. 3 credits.*

### NU 210 Introduction to Professional Nursing II

*Prerequisite: NU 200*
*Corequisites: BI 262, SO 215 or SO 220*

Health of individuals and families is assessed. Communication, physical assessment, nursing process and other skills for professional practice are introduced. Medication calculations continue and the administration of medication is introduced. Lecture, an on-campus laboratory on physical assessment and off-campus clinical experiences are included in this course.
*Offered Spring semester every year. 3 credits.*

### NU 310 Nursing Science I

*Prerequisites: NU 200, NU 210; BI 262; SO 215 or SO 220*
*Corequisites: CH 240*

Students will apply the nursing process when caring for the childbearing family and adult medical-surgical patients. Concepts of wellness, disease and health behaviors will be examined as the nursing process is operationalized in the care of adult medical-surgical patients. Lecture and off-campus clinical experiences in maternal-child health nursing and medical-surgical nursing are included in this course.
*Offered Fall semester every year. 8 credits.*

### NU 315 Group Communication Seminar I

*Prerequisites: NU 310*
*Corequisites: NU 340*

The focus of this course is on effectively assessing, analyzing and problem solving the processes of group interactions with peers in the classroom in order to integrate this information into various health care settings.
*Offered Spring semester every year. 1 credit.*

## NU 330 Introduction to Professional Nursing III

*Prerequisite: acceptance into RN to BS Nursing major*

The elements of the Department of Nursing's conceptual nursing practice model are analyzed. The impact of legal, ethical, economic, and environmental factors on person/environmental unity are studied.
*Offered Fall semester every year. 2 credits.*

## NU 335 Introduction to Health Assessment

*Prerequisite: acceptance into RN to BS Nursing major*

The nursing process is used as the organizing framework to identify person/environmental unity of individuals. A variety of skills relevant to professional nursing practice are utilized.
*Offered Fall semester every year. 2 credits.*

## NU 340 Nursing Science II

*Prerequisites: NU 310; CH 240*

*Corequisites: NU 315, MA 150*

Concepts of wellness, disease, and health behaviors are examined as the nursing process is operationalized in the care of pediatric patients. Students practice professional nursing with acutely ill medical-surgical patients. Lecture and an off-site clinical experience are included in this course.
*Offered Spring semester every year. 8 credits.*

## NU 340 Nursing Science II-A

*Prerequisites: NU 330; acceptance into RN to BS Nursing major*

*Corequisites: NU 315*

The focus is on theories and environmental factors which influence health in the community setting. The application of nursing process and diagnostic reasoning in promoting the health of individuals, families and communities is emphasized. Lecture and an off-campus community experience are included in this course.
*Offered Fall semester every year. 8 credits.*

## NU 415 Group Communication Seminar II

*Prerequisite: NU 315*

*Corequisites: NU 430, NU 440*

The independent and interdependent role of the professional nurse as an agent of change is examined.
*Offered Fall semester every year. 1 credit.*

## NU 430 and NU 430-A Research Seminar

*Prerequisite: MA 150*

The focus is on the development of the student as a consumer of nursing research and the utilization of research findings in practice. The course cumulates with a poster presentation.

*Offered every year. 3 credits.*

## NU 440 Nursing Science III

*Prerequisite: NU 340*

*Corequisites: NU 415, NU 430*

Students practice professional nursing with acutely ill adults in mental health care settings. Students identify multiple aspects of community and public health issues. Critical thinking and decision making skills are developed and applied. Lecture and off-campus clinical experiences are included in this course.
*Offered Fall semester every year. 8 credits.*

## NU 445 Group Communication Seminar III

*Prerequisite: NU 415*

*Corequisites: NU 450, NU 460*

The role of the professional nurse in decision making relating to the delivery of health care is explored.
*Offered Spring semester every year. 1 credit.*

## NU 450 and 450-A Leadership in Nursing

*Prerequisite: NU 440 for NU 450; NU 330, NU 340 for NU 450A*

This course focuses on theories of leadership, management, change and communication, which supports the knowledge, skill and values integrated by the nurse into professional leadership behavior. Current trends in nursing and in research relating to nursing leadership and management are explored.
*Offered Spring semester every year. 3 credits.*

## NU 460 Nursing Science IV

*Prerequisite: NU 440*

*Corequisites: NU 445, NU 450*

The focus is on the study and practice of nursing directed at health promotion/restoration of clients with chronic person/environment disunity. Lecture and off-campus clinical experiences are included in this course. Preceptorship opportunities are available to eligible students.
*Offered Spring semester every year. 8 credits.*

## NU 460-A Nursing Science IV

*Prerequisite: NU 340-A*

*Corequisites: NU 445, NU 450*

The focus is on the study and practice of nursing directed at health promotion/restoration of clients with chronic person/environment disunity. Lecture and an off-site clinical experience to best meet the student's learning objectives are included in this course.
*Offered Spring semester every year. 8 credits.*

## NU 480 Independent Study

*Prerequisite: Consent of Department*

Opportunities for students to engage in special studies in nursing according to individual interests and faculty availability.
*Offered every year. 1-6 credits.*

# Occupational Therapy

## Department of Occupational Therapy

### Faculty

Andrea R. Bilics, Associate Professor (1998)
B.S., University of Pennsylvania; M.Ed., Boston College; Ph.D., Boston College

Jacqueline R. Brennan, Assistant Professor (1987)
B.S., University of Connecticut; M.A. Assumption College; M.S., Sargent College

Patricia A. Cannon, Instructor (2000)
B.S.,Framingham State College; M.S. Boston University

Joanne Gallagher, Associate Professor (1996), Department Chair
B.S., Quinnipiac College; M.S., Florida International University; Ed.D., Johnson & Wales University

Patricia C. George, Academic Fieldwork Coordinator (1998)
B.S., Worcester State College

Margaret D. Hart, Assistant Professor (1997)
B.A., Ithaca College; M.S., Boston University; Ph.D., University of Massachusetts, Boston

Catherine McNeil, Assistant Professor (1985)
B.A., University of California at Berkeley; M.S., Columbia University

Worcester State College offers a combined Bachelor of Science in Occupational Studies (BSOS)/Master of Occupational Therapy Degree. This program is accredited by the Accreditation Council for Occupational Therapy Education. (Inquiries regarding accreditation may be made to the Council at 4720 Montgomery Lane, P.O. Box 31220, Bethesda, MD 20824-1220 or by phone at 301-652-2682.) This innovative, entry-level curriculum will enable students who maintain academic standards to transition to graduate standing in the senior year. Freshmen students may complete all academic and fieldwork components of the MOT Degree in five years, including one summer. Qualified transfer students complete the same program (based on completion of prerequisites) in four years, including two summers. Students completing the undergraduate portion of the program receive a BSOS.

The program of study includes 122 undergraduate and 33 graduate credits. Completion of a Master's thesis is required for graduation. Successful graduates will be eligible to sit for the National Board for Certification Examination for Occupational Therapists, which is required for practice in the field.

Application to the BSOS/MOT Program is made through the Admissions Office at the time of application to Worcester State College. Freshmen students are admitted on a rolling admissions basis at the beginning of the academic year (fall) only. Students are encouraged to apply early due to limited space in the program. For freshmen, admission to the Program is based on SAT scores, high school rank and coursework relevant to the major.

Transfer students are admitted on the basis of grade point average, as well as relevant coursework (Anatomy and Physiology I & II, General Psychology I). These students must complete OT 101 & 102 during the summer, progress to sophomore level courses in the fall and expect to complete the program in four years, including two summers. Current Worcester State College students who wish to apply for internal transfer into the program must hold a minimum GPA of 2.75, earn C or better grades in all prerequisite courses, and demonstrate a strong career interest in occupational therapy. These students must notify in writing the Department Chair of their desire for internal transfer.

Any individual who has been convicted of a felony or misdemeanor, involving an act likely to affect professional practice, should meet with the Department Chair prior to applying to the Program. Prior incidents may affect eligibility for certification and employment. A CORI check may be conducted prior to Fieldwork Level I and Level II.

**Program Requirements:**

Note: 1) All OT prerequisites and major courses must be completed with a C or better.
2) Courses must be taken in prescribed sequence or with Department Chair's approval.
3) All coursework must be completed prior to beginning Level II Fieldwork. No student will be allowed to begin OT 920 until all 400 level coursework (and OT 932 and 928) have been successfully completed. No student will be allowed to begin OT 921 until all coursework (including thesis) has been successfully completed. Eligibility for the national certification examination requires successful completion of six months of Level II Fieldwork (OT 920 and 921).
Note: OT 921 must be completed within 12 months of the academic preparation.

## BSOS/MASTER OF OCCUPATIONAL THERAPY (MOT) CURRICULUM

### Program of Study - Freshmen

| **Freshman Fall Semester** | | **Credits** |
|---|---|---|
| OT 101 | Introduction to Occupational Studies of Wellness/Disability | 3 |
| BI 161 | Anatomy & Physiology I | 4 |
| PS 110 | General Psychology I | 3 |
| WSC 101 | Academic Strategies for College Success | 1 |
| ** *** | Foundation | 3 |
| ** *** | Distribution | 3 |
| | | **17** |

| **Freshman Spring Semester** | | |
|---|---|---|
| OT 102 | Occupational Studies of Wellness/Disability Groups | 3 |
| BI 162 | Anatomy & Physiology II | 4 |
| ** *** | Distribution | 3 |
| ** *** | Distribution | 3 |
| ** *** | Foundation | 3 |
| | | **16** |

**Sophomore Fall Semester**

| | | |
|---|---|---|
| OT 203 | Occupational Therapy Theories | 3 |
| PS 210 | Child Growth and Development **or** | |
| | PS 220 Psych of Aging | 3 |
| BI 315 | Neuroscience | 4 |
| MA 150 | Statistics I or PS 275 Psychological Statistics or Distribution | 3 |
| ** *** | Foundation | 3 |
| | | **16** |

**Sophomore Spring Semester**

| | | |
|---|---|---|
| OT 211 | Kinesiology Lab | 1 |
| BI 171 | Kinesiology | 3 |
| PS 210 | Child Growth and Development **or** | |
| | PS 220 Psych of Aging | 3 |
| MA 150 | Statistics I or PS 275 Psychological Statistics or Distribution | 3 |
| ** *** | Distribution | 3 |
| ** *** | Distribution | 3 |
| | | **16** |

**Junior Fall Semester**

| | | |
|---|---|---|
| OT 301 | Psychosocial Wellness/Disability | 2 |
| OT 302 | Psychosocial Therapeutic Approaches | 2 |
| OT 304 | Psychosocial Therapeutic Approaches Lab | 2 |
| ** *** | Distribution | 3 |
| ** *** | Distribution | 3 |
| ** *** | Distribution | 3 |
| | | **15** |

**Junior Spring Semester**

| | | |
|---|---|---|
| OT 312 | Physiological Wellness/Disability | 2 |
| OT 313 | Physiological Therapeutic Approaches | 2 |
| OT 318 | Physiological Therapeutic Approaches Lab | 2 |
| OT 317 | Research I | 3 |
| ** *** | Elective | 3 |
| ** *** | Distribution | 3 |
| | | **15** |

**Senior Fall Semester**

| | | |
|---|---|---|
| OT 401 | Occupational Performance & Context for Elders | 2 |
| OT 402 | Therapeutic Approaches for Elders | 2 |
| OT 403 | Therapeutic Approaches Lab for Elders | 2 |
| OT 404 | Assistive Technology I | 3 |
| OT 407 | Research II | 3 |
| ** *** | Distribution | 3 |
| | | **15** |

**Senior Spring Semester**

| | | |
|---|---|---|
| OT 421 | Occupational Performance & Context for Children/Adolescents | 2 |
| OT 427 | Therapeutic Approaches for Children/Adolescents | 2 |
| OT 423 | Therapeutic Approaches Lab Children/Adolescents | 2 |
| OT 424 | Assistive Technology II | 3 |
| OT 426 | Professional Issues | 3 |
| OT 917 | Advanced Group Theories | 3 |
| OT 928 | Thesis Seminar I | 3 |
| | | **12 + 6** |

**BSOS Granted**

(122 undergraduate credits)

**Graduate Summer Semester**

| | | |
|---|---|---|
| OT 920 | Level II Fieldwork #1 | 3 |
| | | **3** |

**Graduate Fall Semester**

| | | |
|---|---|---|
| OT 903 | Clinical Reasoning I | 3 |
| OT 906 | Global Health | 3 |
| OT 908 | Community Health & Practicum | 3 |
| OT 929 | Thesis Seminar II | 3 |
| OT 931 | Organization and Administration | 3 |
| | | **15** |

**Graduate Spring Semester**

| | | |
|---|---|---|
| OT 905 | Clinical Reasoning II | 3 |
| OT 930 | Thesis Seminar III | 3 |
| OT 921 | Level II Fieldwork #2 | 3 |
| | | **9** |

(33 graduate credits)
**MOT Granted**

## BSOS/MASTER OF OCCUPATIONAL THERAPY (MOT) CURRICULUM

**Program of Study – Transfers***

*** For transfer students who do not have a baccalaureate degree. Entry to OT 101 and OT 102 in the summer is contingent on other freshman course requirements having been met (BI 161, BI 162, PS 100) by the end of the summer sessions.**

| **Entry Summer Semester** | | **Credits** |
|---|---|---|
| OT 101 | Introduction to Occupational Studies of Wellness/Disability | 3 |
| OT 102 | Occupational Studies of Wellness/Disability Groups | 3 |
| | | **6** |

**Sophomore Fall Semester**

| | | |
|---|---|---|
| OT 203 | Occupational Therapy Theories | 3 |
| PS 210 | Child Growth and Development **or** PS 220 Psych of Aging | 3 |
| BI 315 | Neuroscience | 4 |
| MA 150 | Statistics I or PS 275 Psychological Statistics or Distribution | 3 |
| ** *** | Foundation | 3 |
| | | **16** |

**Sophomore Spring Semester**

| | | |
|---|---|---|
| OT 211 | Kinesiology Lab | 1 |
| BI 171 | Kinesiology | 3 |
| PS 210 | Child Growth and Development **or** PS 220 Psych of Aging | 3 |
| MA 150 | Statistics I or PS 275 Psychological Statistics or Distribution | 3 |
| ** *** | Distribution | 3 |
| ** *** | Distribution | 3 |
| | | **16** |

**Junior Fall Semester**

| | | |
|---|---|---|
| OT 301 | Psychosocial Wellness/Disability | 2 |
| OT 302 | Psychosocial Therapeutic Approaches | 2 |
| OT 304 | Psychosocial Therapeutic Approaches Lab | 2 |
| ** *** | Distribution | 3 |
| ** *** | Distribution | 3 |
| ** *** | Distribution | 3 |
| | | **15** |

**Junior Spring Semester**

| | | |
|---|---|---|
| OT 312 | Physiological Wellness/Disability | 2 |
| OT 313 | Physiological Therapeutic Approaches | 2 |
| OT 318 | Physiological Therapeutic Approaches Lab | 2 |
| OT 317 | Research I | 3 |
| ** *** | Elective | 3 |
| ** *** | Distribution | 3 |
| | | **15** |

**Senior Fall Semester**

| | | |
|---|---|---|
| OT 401 | Occupational Performance & Context for Elders | 2 |
| OT 402 | Therapeutic Approaches for Elders | 2 |
| OT 403 | Therapeutic Approaches Lab for Elders | 2 |
| OT 404 | Assistive Technology I | 3 |
| OT 407 | Research II | 3 |
| ** *** | Distribution | 3 |
| | | **15** |

**Senior Spring Semester**

| | | |
|---|---|---|
| OT 421 | Occupational Performance & Context for Children/Adolescents | 2 |
| OT 427 | Therapeutic Approaches for Children/Adolescents | 2 |
| OT 423 | Therapeutic Approaches Lab Children/Adolescents | 2 |
| OT 424 | Assistive Technology II | 3 |
| OT 426 | Professional Issues | 3 |
| OT 917 | Advanced Group Theories | 3 |
| OT 928 | Thesis Seminar I | 3 |
| | | **12 + 6** |
| | | **BSOS Granted** |
| | | **(122 undergraduate credits)** |

**Graduate Summer Semester**

| | | |
|---|---|---|
| OT 920 | Level II Fieldwork #1 | 3 |
| | | **3** |

**Graduate Fall Semester**

| | | |
|---|---|---|
| OT 903 | Clinical Reasoning I | 3 |
| OT 906 | Global Health | 3 |
| OT 908 | Community Health & Practicum | 3 |
| OT 929 | Thesis Seminar II | 3 |
| OT 931 | Organization and Administration | 3 |
| | | **15** |

***Graduate Spring Semester***

| | | |
|---|---|---|
| OT 905 | Clinical Reasoning II | 3 |
| OT 930 | Thesis Seminar III | 3 |
| OT 921 | Level II Fieldwork #2 | 3 |
| | | **9** |
| | | (33 graduate credits) |
| | | **MOT Granted** |

# COURSES

### OT 101 Introduction to Occupational Studies of Wellness/Disability

Introduction to occupational therapy history, philosophy, wellness/disability continuum, contexts, occupations, occupational performance, professionalization and clinical reasoning.
*3 credits*

### OT 102 Occupational Studies of Wellness/Disability Groups

Exploration of professional themes: philosophy, wellness/disability continuum using groups, occupational performance and activity, professionalization and clinical reasoning.
*3 credits*

### OT 203 Occupational Therapy Theories

Investigation of theories basic to occupational therapy, related to occupation, individual and context. Includes current and developing models of practice.
*3 credits*

### OT 211 Kinesiology Lab

*Concurrent with BI 171*

Opportunities to develop skills that apply kinesiology to occupational therapy practice.
*1 credits*

### OT 301 Psychosocial Wellness/Disability

*Concurrent with OT 302 and OT 304*

Historical themes of the profession, wellness/illness/disability continuum, occupation and context as it applies to psychosocial performance in life roles.
*2 credits*

### OT 302 Psychosocial Therapeutic Approaches

Occupational performance and context, professionalization, and clinical reasoning will be applied to practice models when addressing psychosocial health and illness.
*2 credits*

### OT 304 Psychosocial Therapeutic Approaches Lab

Directed observation and participation in the clinical application of theories and methods of occupational therapy intervention with psychosocial disorders. Includes Fieldwork I.
*2 credits*

### OT 312 Physiological Wellness/ Disability

*Concurrent with OT 313 and OT 318*

Historical themes of the profession, wellness/illness/disability continuum, occupation and context as it applies to physiological performance in life roles.
*2 credits*

### OT 313 Physiological Therapeutic Approaches

Occupational performance and context, professionalization, and clinical reasoning will be applied to practice models when addressing physiological health and illness.
*2 credits*

### OT 317 Research I

*Prerequisite: MA 150 or PS 275*

Course will examine qualitative and quantitative research related to OT. The focus will be on reading and designing research.
*3 credits*

### OT 318 Physiological Therapeutic Approaches Lab

Directed observation and participation in the clinical application of theories and methods of occupational therapy intervention with physiological disorders. Includes Fieldwork I.
*2 credits*

## OT 401 Occupational Performance & Context for Elders

*Concurrent with OT 402, OT 403 and OT 404*

The wellness/illness/disability continuum will be applied to occupational performance in life roles for the geriatric population.
*2 credits*

## OT 402 Therapeutic Approaches for Elders

Occupational therapy strategies for elders across the wellness/illness/disability continuum with emphasis on occupational performance/context and clinical reasoning.
*2 credits*

## OT 403 Therapeutic Approaches Lab for Elders

Experiential learning with assessments and intervention approaches for elders. Includes Fieldwork 1 experience in various sites off campus.
*2 credits*

## OT 404 Assistive Technology I

Assistive technology related to the needs of the adult and geriatric populations will be explored
*3 credits*

## OT 407 Research II

Course will examine evidence-based practice, program evaluation, quantitative and qualitative data collection and analysis, and research writing.
*3 credits*

## OT 421 Occupational Performance & Context for Children/Adolescents

*Concurrent with OT 423, OT 424 and OT 427*

Wellness/illness/disability continuum will be applied to performance in life roles related to the child and adolescent populations.
*2 credits*

## OT 423 Therapeutic Approaches Lab for Children/Adolescents

Experiential learning with assessments and intervention approaches; professional oral and written communication skill development. Includes Fieldwork I experience.
*2 credits*

## OT 424 Assistive Technology II

Assistive technology applied to the occupational performance and context of child and adolescent populations.
*3 credits*

## OT 426 Organizational & Professional Issues I

Introduction to principles of organization, administration and management applied to the delivery of occupational therapy services in various practice settings. Work relationships, ethical issues and laws influencing practice will also be discussed.
*3 credits*

## OT 427 Therapeutic Approaches for Children/Adolescents

Occupational therapy strategies for child and adolescent populations across wellness/illness/disability continuum with emphasis on occupational performance and context.
*2 credits*

## OT 903 Clinical Reasoning I

Seminar to apply clinical reasoning skills to case studies integrating all aspects that influence therapeutic decision-making, including, occupational performance areas, components, and contexts.
*3 credits.*

## OT 905 Clinical Reasoning II

Continuing seminar to apply clinical reasoning skills to case studies integrating all aspects that influence therapeutic decision-making, including occupational performance areas, components, and contexts.
*3 credits.*

## OT 906 Global Health Issues

Understanding health issues from a global perspective of the economic, political, social, and cultural forces, which impact on health and health services.
*3 credits.*

### OT 908 Community Health and Practicum

Community as a context for human functioning and occupational therapy intervention. Includes community placement.
*3 credits.*

### OT 917 Advanced Group Theories

In depth study of theories related to group process and the therapeutic uses of groups.
*3 credits.*

### OT 920 Level II Fieldwork I

Twelve weeks of full-time (or equivalent part-time) fieldwork in approved setting with supervision that meets ACOTE Standards.
*3 credits.*

### OT 921 Level II Fieldwork II

Twelve weeks of full-time (or equivalent part-time) fieldwork in approved setting with supervision that meets ACOTE Standards.
*3 credits.*

### OT 928 Thesis Seminar I

Seminar focusing on the development of thesis proposals.
*3 credits.*

### OT 929 Thesis Seminar II

Seminar focusing on the collection and analysis of data.
*3 credits.*

### OT 930 Thesis Seminar III

Seminar focusing on writing and disseminating a research report
*3 credits.*

### OT 931 Organizational & Professional Issues II

An advanced seminar exploring issues relevant to the changing roles and responsibilities of practitioners and to the rapidly evolving practice contexts.
*3 credits.*

# Philosophy
## Department of Philosophy

## Faculty

Gerald Robbins, Associate Professor (1971)
A.B., Rutgers University; M.A., New School for Social Research

Courtney D. Schlosser, Professor (1971)
A.B., George Washington University; Ed.M., Ed.D., Boston University

Daniel C. Shartin, Associate Professor (1993)
B.A., M.A., Ph.D., University of California at Los Angeles

Henry C. Theriault, Associate Professor (1998)
B.A., Princeton University; Ph.D., University of Massachusetts

Kristin Waters, Professor (1999), Department Chair
A.B., Bard College; M.A., Ph.D., University of Connecticut

The purpose of philosophy is the development of a free, responsible and civilized person with a critical and humane intelligence. To achieve this objective the student studies the major philosophers in the ancient, medieval, modern and contemporary periods, and the basic problems (political, social, moral, and metaphysical) concerning human nature and destiny.

**Requirements for a Minor in Philosophy:** 18 credits including

| | |
|---|---|
| PH 120 | History of Western Philosophy |
| PH 140 | Philosophy of Science, Nature, and Man |

Minors should select their philosophy courses in consultation with an advisor in the department.

## Philosophy Courses

### PH 100 Introduction to Philosophy

The fundamentals of philosophy: its vocabulary, problems, and methods.
*Offered every year. 3 credits.*

### PH 110 Critical Thinking

Critical thinking through informal logical analysis of argument styles, including identification of fallacious arguments.
*Offered every year. 3 credits.*

### PH 115 Logic 1

A study of introductory symbolic (formal) logic course, covering sentential logic and the foundations of predicate logic.
*Offered every year. 3 credits.*

### PH 120 History of Western Philosophy

The development of philosophy in the Western World from the ancient Greeks to the twentieth century.
*Offered every year. 3 credits.*

### PH 130 Ethics: Human Conduct and Values

The nature of morality and value and their place in the world of human action.
*Offered every year. 3 credits.*

### PH 140 Philosophy of Science and Nature

A philosophical examination of the relation between man and the world as exemplified in science.
*Offered every year. 3 credits.*

### PH 150 Women in Western Ideas

Investigates the concept of woman from ancient Greece to the present.
*Offered every 2 year. 3 credits.*

### PH 170 Medical Ethics

An introductory-level examination of various ethical issues such as abortion, euthanasia, cloning and other genetics issues, access to healthcare, race and healthcare, and women's health.
*Offered every year. 3 credits.*

### PH 172 Ancient Chinese Philosophies in a Cultural Perspective

Ancient Chinese philosophies of Taoism, Confucianism, Buddhism, and neo-Confucianism in the context of contemporary developments in China; Communism, Capitalism, and Western influences considered.
*Offered every year. 3 credits.*

### PH 190 Special Topics in Philosophy

An introductory philosophy course on current or specialized topics
*Offered every year. 3 credits.*

### PH 200 Philosophy of Being, Knowledge, and God

A critical evaluation of answers to the most general questions of human existence: What is there? How do we know it? How did it come to be?
*Offered every year. 3 credits.*

### PH 210 Existentialism and Contemporary Philosophy

An in-depth study of the continental tradition in philosophy.
*Offered every 2 years. 3 credits.*

### PH 215 Logic 2

*Prerequisite: PH 115*

Intermediate symbolic (formal) logic including multi-placed predicates and identity.
*Offered every year. 3 credits.*

### PH 220 History of American Philosophy

A general overview of the American contribution to the development of Western Philosophy.
*Offered every 2 years. 3 credits.*

### PH 230 Religious Philosophies, East and West

An examination of the major religious systems, both oriental and occidental.
*Offered every 2 years. 3 credits.*

### PH 240 Political Theory

Investigates concepts including political power, equality, revolution, liberties, slavery, socialism and liberalism, patriarchal power, race and gender.
*Offered every 3 years. 3 credits.*

### PH 250 Genocide and Human Rights

This course treats the ethical, political, and other dimensions of systematic mass violence through case studies and general theoretical analyses.
*Offered every 3 years. 3 credits.*

### PH 260 Global Feminism

Investigates the theoretical underpinnings of women's movements for equal rights around the globe.
*Offered every 2 years. 3 credits.*

### PH 261 European Philosophy to 1900

Explores the works of selected 19th Century European philosophers, which might include Hegel, Nietzsche, and others.
*Offered every year. 3 credits.*

## PH 262 European Philosophy from 1900 to the Present

A treatment of selected 20th and 21st Century philosophical works, typically including such figures as Foucault and Irigaray.

*Offered every year. 3 credits.*

## PH 290 Advanced Special Topics in Philosophy

A treatment of current or special topics for students beyond the introductory level.
*Offered every year. 3 credits.*

## PH 300 Philosophy of History

*Prerequisite: One semester of philosophy*

A study of the meaning and value of history for human life.
*Offered every 3 years. 3 credits.*

## PH 310 Philosophy of Art

*Prerequisite: One semester of philosophy*

An investigation of the nature of aesthetic experience.
*Offered every 3 years. 3 credits.*

## PH 320 Philosophy of Education

*Prerequisite: One semester of philosophy*

A philosophical critique of current educational practices in light of the generally accepted purposes of education.
*Offered every 3 years. 3 credits.*

## PH 330 Philosophy, Human Potentiality and Consciousness

*Prerequisite: One semester of philosophy*

The application of philosophical knowledge to the problems of creative self-actualization and consciousness.
*Offered every 3 years. 3 credits.*

## PH 400 Seminar: Topics in Philosophy

*Prerequisite: One semester of philosophy*

Specific subject matter chosen by the department in conjunction with student need and demand.
*Offered every 3 years. 3 credits.*

## PH 410 Independent Study in Philosophy

*Prerequisite: Consent of instructor*

Tutorials in areas of philosophy not covered in other course offerings.
*Offered every year. 1-6 credits.*

# Physical Education
## Department of Health Sciences

The physical education program offers students participation in individual and team activities designed to develop skill, fitness and knowledge to meet immediate and lifelong needs and interests.

## Physical Education Courses

### PE 100 Physical Education Activity Courses

Activities include basketball, dance, aerobics, fitness, football, golf, racquetball, relaxation, sailing, softball, tennis, volleyball, weight training, and yoga.
*Offered every year. 1 credit.*

### PE/HE 140 Introduction to Creative Arts and Health

An experiential and didactic introduction to making connections between the arts process/product and health.
*Offered every 3 years. 3 credits.*

### PE/HE 150 Health and Physical Education for the Teacher

The planning, development, implementation and evaluation of comprehensive health education programs.
*Offered every year. 3 credits.*

### PE 175 Principles of Coaching

The values, relationships, and skills necessary to coach children and young adults in competitive athletics.
*Offered every 2 years. 3 credits.*

### PE 190 Sport and Society

Analysis of sport as a social system; the implications of sport within interrelational contexts of other social systems.
*Offered every 2 years. 3 credits.*

### PE 205 Coaching Team Sports for Men

The techniques and strategies of coaching basketball and baseball.
*Offered every 2 years. 3 credits.*

### PE 215 Coaching Tennis

Selecting, training, strategies and teaching techniques in developing a tennis program.
*Offered every year. 3 credits.*

### PE 225 Fundamentals of Athletic Training

The prevention and treatment of all types of athletic injuries. Anatomy, injury recognition, physiology, and taping are included.
*Offered every 2 years. 3 credits.*

### PE 240 Athletic Programs

Financing, scheduling, administering, and evaluating high school sports.
*Offered every year. 3 credits.*

### PE/HE 260 First Aid: Advanced Theory and Skill

Common emergencies, cardiopulmonary resuscitation, auto extrication, and emergency childbirth. Opportunity for instructor rating.
*Offered every 3 years. 3 credits.*

### PE/HE 275 Fitness for Life

Knowledge of health-related fitness components and their effect on total wellness; emphasis on developing personalized fitness programs.
*Offered every year. 3 credits.*

### PE/HE 280 Individualized Stress Management and Relaxation

Strategies and techniques for increasing stress resistance based on psychophysiological research.
*Offered every year. 3 credits.*

### PE 300 Fitness Appraisal and Exercise Prescription

*Prerequisites: BI 161, BI 162, PE 275*

Administration and interpretation of health-fitness tests, formulation of individualized exercise prescriptions and methods of teaching fitness programs.
*Offered every year. 3 credits.*

### PE 400 Independent Study in Physical Education/Coaching

*Prerequisite: Consent of department*

Opportunity to engage in research in an area of special interest not covered in elective course offerings.
*Offered every year. 1 - 6 credits.*

### PE 410 Field Experience in Physical Education/Coaching

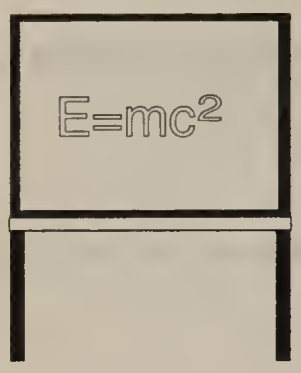
*Prerequisite: Consent of department*

Organizing and conducting either physical education or coaching activities at the elementary or secondary level. (40 hours for each credit)
*Offered every year. 3-6 credits.*

### PE 420 Practicum in Health Fitness

*Prerequisite: Consent of department*

Opportunity to gain practical experience under supervision in a health fitness field placement.
*Offered every year. 3 credits.*




# Physics
## Department of Physical and Earth Science

## Faculty

William A. Belanger, Associate Professor (1967)
B.S., Ed.M., Worcester State College; M.N.S., Worcester Polytechnic Institute

Fancisco J. Lamelas, Associate Professor (2005)
B.S., University of Wisconsin, Milwaukee; M.S., University of Wisconsin;
M.S., Ph.D., University of Michigan

Sudha R. Swaminathan, Assistant Professor (2005)
A.B., (Physics), A.B., (Mathematics) Mount Holyoke College;
M.S., Ph.D., University of Michigan

**Requirements for a Minor in Physics:** 18 credits in Physics including

| | |
|---|---|
| PY 221 & PY 222 | General Physics I and II **or** |
| PY 241, PY 242, PY 243 | Physics I, II, and III |

The Physics minor is especially recommended for students who are majoring in Biology, Biotechnology, Chemistry, Computer Science or Mathematics.

## Physics Courses

### PY 114 Physics of Music

Introductory mechanics and wave principles applied to musical acoustics; demonstrations of musical instruments and measuring.
*Offered every year. 3 credits.*

### PY 215 Biological Physics I

*Prerequisite: Six hours of biological science or consent of instructor*

Traditional areas of introductory physics, such as mechanics, heat, sound, with emphasis on bioinstrumentation; two lectures and one two-hour laboratory.
*Offered every 3 years. 3 credits.*

### PY 216 Biological Physics II

*Prerequisite: PY 215*

Continuation of PY 215; research project required; two lectures and one two-hour laboratory.
*Offered every 3 years. 3 credits.*

### PY 221 General Physics I

*Prerequisite: One year of algebra*

The mechanics of fluids and solids, properties of matter, and heat energy; three lectures and one two-hour laboratory.
*Offered every year. 4 credits.*

## PY 222 General Physics II

*Prerequisite: One year of algebra, PY 221*

Sound, theories of light, electricity, and magnetism, and topics in modern physics; three lectures and a two-hour laboratory.
*Offered every year. 4 credits.*

## PY 241 Physics I (Mechanics)

*Prerequisite: One year of calculus (may be taken concurrently)*

Introduction to classical physics with emphasis on fundamental principles and conservation laws; three lectures and one two-hour laboratory.
*Offered every year. 4 credits.*

## PY 242 Physics II (Electricity and Magnetism)

*Prerequisite: One year of calculus (may be taken concurrently), PY 241*

Properties of electric and magnetic fields; direct and alternating current; passive and active electronic components. Three lectures and one two-hour laboratory.
*Offered every year. 4 credits.*

## PY 243 Physics III (Heat and Wave Motion)

*Prerequisite: One year of calculus (may be taken concurrently), PY 241*

Fluids, heat, and wave phenomena; three lectures and one two-hour laboratory.
*Offered every 3 years. 4 credits.*

## PY 271 Analog and Digital Electronics I

*Prerequisite: MA 110*

Basic principles of digital and linear integrated circuits. Laboratory on direct-current circuit elements and theorems; breadboard testing of digital and operational amplifier applications; three lectures and two-hour laboratory.
*Offered every year. 4 credits.*

## PY 272 Analog and Digital Electronics II

*Prerequisite: PY 271*

Continuation of PY 271; additional applications of digital integrated circuits; three lectures and a two-hour laboratory.
*Offered every year. 4 credits.*

## PY 310 Modern Physics

*Prerequisite: One year each of physics and calculus*

The atomic nature of matter, special relativity, atomic models, the wave nature of matter, and radioactivity.
*Offered every 3 years. 3 credits.*

## PY 410 Independent Study In Physics

*Prerequisite: Consent of department*

Opportunity for advanced students to pursue topics of special interest involving extensive reading, experimentation, and research.
*Offered every year. 1-6 credits.*

## PY/BI 451 Nuclear Instrumentation I

*Prerequisite: Consent of NMT coordinator*

The structure, functions, and interactions of particulate and non-particulate radiations with matter, detection, calibration, dosage, and statistical methods.
*Offered every year. 4 credits.*

## PY/BI 452 Nuclear Instrumentation II

*Prerequisite: Consent of NMT coordinator*

Designed to further the skills of operating, calibrating, and performing routine maintenance on scanners, gamma cameras, well counters, and liquid scintillation counters.
*Offered every year. 4 credits.*

# Political Science

## Department of History and Political Science

## Faculty

Joseph P. Baratta, Associate Professor (1999)
Ph.D., Boston University

Frank S. Minasian, Associate Professor (1968)
A.B., Clark University; M.A.T., Assumption College

Najib E. Saliba, Professor (1971)
A.B., Miami University; M.A., Ph.D., University of Michigan

Emmett A. Shea, Professor (1962)
B.S., Ed.M., M.A., Boston University; M.A., Boston College

Robert M. Spector, Professor (1963)
A.B., Ed.M., M.A., Ph.D., Boston University; J.D., Boston College

David J. Twiss, Associate Professor (1968)
B.S., Ed.M., Worcester State College; M.A., Assumption College

**Requirements for a Minor in Political Science:** 18 credits

PO 101 Principles of Political Science
Political Science electives: 15 credits

## Political Science Courses

### PO 101 Principles of Political Science

An introduction to political analysis; study of the concepts of power, legitimacy, natural law, justice and liberty.
*Offered every year. 3 credits.*

### PO 102 Constitutions: US and Massachusetts

Examines the origins and development of the United States and Massachusetts Constitutions. Meets Massachusetts General Laws, Chapter 73, Sec 2A requirement.
*Offered every year. 3 credits.*

### PO 103 Fundamentals of Legal Research

Locating the text of statutes, regulations and court decisions (state and national) for a particular date and on specific subjects.
*Offered every 3 years. 1 credit.*

## PO 201 International Relations I

*Prerequisite: PO 101 or HI 103 or HI 104*

The theory of international relations and important contemporary problems.
*Offered every year. 3 credits.*

## PO 202 International Relations II

*Prerequisite: PO 101 or HI 103 or HI 104*

A continuing consideration of the theory of international relations and important contemporary problems.
*Offered every year. 3 credits.*

## PO 210 American Government

Examines our national government and politics.
*Offered every year. 3 credits.*

## PO/HI 211 History of US Foreign Policy I

*Prerequisite: HI 111 or HI 112*

Colonial origins to the era of the Spanish-American War. The sources and development of US foreign policy in that period.
*Offered every year. 3 credits.*

## PO/HI 212 History of US Foreign Policy II

*Prerequisite: HI 111 or HI 112*

From 1900 to recent times; US foreign policy traditions and the challenges of great power status.
*Offered every year. 3 credits.*

## PO 213 The Modern Presidency

This course will examine the evolution of the presidency. Special attention is given to those presidents who have expanded the office.
*Offered every 3 years. 3 credits.*

## PO 215 State and Local Government

Examines sub-national governments and politics in the United States; the structure and problems of these governments.
*Offered every year. 3 credits.*

## PO 216 Political Parties and Pressure Groups

Examines the organization, functions, and methods of political parties; the role of interest groups in the American political process.
*Offered every year. 3 credits.*

## PO 217 The Legislative Process

The nature and function of the US Congress, including legislative campaigns, politics, and major problems of Congress.
*Offered every 3 years. 3 credits.*

## PO/HI 218 US Constitutional History I

The development of constitutional history as seen in decisions of the US Supreme Court and their effects from 1789 to 1921.
*Offered every 2 years. 3 credits.*

## PO/HI 219 US Constitutional History II

Supreme Court decision-making from 1921; federal-state relations, civil liberties, civil rights, loyalty program, labor, rights of defendants.
*Offered every 2 years. 3 credits.*

## PO 220 Comparative Politics I

*Prerequisite: PO 101*

A comparative study of the politics and governments of Great Britain, West Germany, and the Soviet Union.
*Offered every 3 years. 3 credits.*

## PO 221 Comparative Politics II

*Prerequisite: PO 101*

A comparative study of the political and social systems of South Africa and India, including recent trends in their political development.
*Offered every 3 years. 3 credits.*

## PO/HI 259 Crisis Management

A study of the decision making process regarding crisis situations, i.e., the role of the President, Congress, Intelligence Community and the Military.
*Offered every 2 years. 3 credits.*

## PO/HI 330 Politics of the Middle East I

*Prerequisite: PO 101 or HI 261 or HI 314*

Discusses governments and politics of eastern Arab countries, Turkey, Iran, and Israel. International rivalries in the area are also discussed.
*Offered every year. 3 credits.*

## PO 350 Soviet Government and Politics

*Prerequisite: PO 101*

An analysis of the forces and institutions which have influenced political developments in the Soviet Union since 1917.
*Offered every 3 years. 3 credits.*

## PO 355 Soviet Foreign Policy

*Prerequisite: PO 101*

Instruments of Soviet foreign relations; an analysis of Russian foreign affairs since 1917.
*Offered every 3 years. 3 credits.*

## PO 370 Crisis Politics

*Prerequisite: PO 101*

Analysis of theories regarding the roots of violence, revolution, and terrorism. Special attention will be devoted to violence in America.
*Offered every 2 years. 3 credits.*

## PO 380 American Foreign Policy Since the Cold War

*Prerequisite: PO 101 or HI 112 or HI 212*

Instruments of American foreign policy; major foreign policy developments since 1947.
*Offered every 2 years. 3 credits.*

## PO 400 Independent Study in Political Science

*Prerequisite: Consent of Instructor*

Special topics for advanced research and study under the guidance of a faculty member.
*Offered every year. 1 - 3 credits.*

## PO 450 Special Topics in Political Science

*Prerequisite: Consent of Instructor*

Selected areas of interest to students and instructors.
*Offered every 3 years. 3 credits.*

# Psychology
## Department of Psychology

## Faculty

Amy Cota-McKinley, Assistant Professor (2002)
B.A., University of Wisconsin-Milwaukee; M.S., Jacksonville State University; Ph.D., Colorado State University

Lori J. Dawson, Associate Professor (1995)
B.A., Suffolk University; M.A., Ph.D., S.U.N.Y. Albany

Bernard J. Guarini, Associate Professor (1965),
B.S., College of the Holy Cross; M.A., Clark University; M.A., C.A.G.S., Assumption College

Joline N. Jones, Professor (1972)
A.B., Ph.D., Syracuse University

Bonnie G. Kanner, Associate Professor (1997)
B.A., M.S., C.A.S., S.U.N.Y. Albany; Ph.D. Clark University

Richard K. Kimball, Associate Professor (1985)
A.B., Dartmouth College; Ph.D., State University of New York, Buffalo

Pearl Mosher-Ashley, Professor (1989)
B.A., M.A., Mount Holyoke College; Ph.D., University of Massachusetts

Jeanne Plas (2004), Department Chair
A.B., Catholic University of America; M.A., Kent State University; Ph.D., University of Georgia

Gail A. Racicot, Assistant Professor (2005)
B.S., M.Ed., CAGS, Worcester State College; Ed.D., American International College

Brandi Scruggs, Assistant Professor (2003)
B.S., M.S., Ph.D., Colorado State University

Emily Soltano, Assistant Professor (1999)
B.A., Ph.D., University at Albany, State University of New York

C. Keshini Soysa, Assistant Professor (2003)
B.A., Indraprastha College, University of Delhi; A. B., Mount Holyoke College; M.A., Ph.D., Clark University

Marc J. Wagoner, Assistant Professor (2004)
B.A., Morehouse College, Atlanta, GA; Ph.D., University of Minnesota

*Psychology*

Psychology courses acquaint students with basic principles of learning, motivation, development, and interpersonal relationships, providing a foundation for effective living and a background for a variety of career opportunities. The major provides students with a wide range of marketable and graduate study skills that include interpersonal awareness, problem-solving, research, and computer literacy.

Baccalaureate degree holders are prepared for entry level positions in a broad range of areas including health and social services, mental health, organizational leadership and management, community relations, education, human resources, program development, public affairs, social science research, and programs for women. Psychology is recognized in Massachusetts as a certificate academic major for Early Childhood and Elementary Education students. Those who major in psychology are able to develop an expertise in one of the Department's areas of concentration: Mental Health Services, Developmental Process, and Industrial/Organizational Psychology. A certificate in gerontology is available as a specialization. Those with bachelor's degrees in psychology work in the same fields as do psychologists with graduate degrees. Some of the department's alumni:

- Counsel or teach people in group homes, nursing homes, and clinics
- Are case managers in insurance companies
- Plan and execute research
- Help young people in juvenile courts, schools and recreational programs
- Are behavior specialists
- Counsel drug addicts and victims of abuse

The department provides solid preparation for graduate work in psychology by helping students develop specializations and providing opportunities for the development of excellent research skills. The department offers an HONORS program and an internship program and operates a state-of-the-art computer laboratory. Psi Chi, the national honor society in psychology, is available to outstanding students who major in the discipline.

The **minor** program offers an opportunity for students wishing to develop a core understanding of psychology. The minor is not meant for students whose primary interest is the study of psychology; instead, it is a complement to other fields of study where knowledge of psychology and its methods would be beneficial.

**Admission Requirements:** Admission is open to any student who is interested in psychology and who can maintain a 2.0 grade point average in the required and elective psychology courses.

**Standards for Minimum Academic Performance in the Psychology Major:** The Psychology major requires a minimum grade of C- in all courses applied to the major. Courses may be repeated. The C- minimum grade does not apply to psychology courses beyond those applied to the major (four specified, four from specified areas and four elective courses). Students must maintain a minimum overall GPA of 2.0 in the major, consistent with college policy.

**Requirements for a Major in Psychology:** The Psychology major requires successful completion of 12 courses in Psychology. Four of these courses are specific core requirements; four are from specified areas and the remaining four are electives. The minimum of 36 credits (up to a maximum of 48) must include the following four core courses:

| | |
|---|---|
| PS 110 | General Psychology I |
| PS 111 | General Psychology II |
| PS 275 | Psychological Statistics |
| PS 305 | Research Methods |

and at least four courses (12 credits) from the following, including one from each of four different areas:

Area 1 — Developmental
- 1 — PS 210 Child Growth and Development
- 2 — PS 215 Psychology of Adolescence
- 3 — PS 220 Psychology of Aging

Area 2 — Social Psychology
- 1 — PS 250 Social Psychology
- 2 — PS 252 Applied Social Psychology

Area 3 — Personality and Abnormal Psychology
- 1 — PS 330 Theories of Personality
- 2 — PS 335 Abnormal Psychology
- 3 — PS 340 Introduction to Psychometrics

Area 4 — Learning and Cognition
- 1 — PS 325 Psychology of Learning
- 2 — PS 345 Cognitive Psychology

Area 5 — Biopsychosocial Processes
- 1 — PS 280 Sensation and Perception
- 2 — PS 380 Physiological Psychology
- 3 — PS 222 Introduction to Health Psychology

and 12 credits in psychology electives of which at least two courses (six credits) must be at a 300 and/or 400 level.

**Evening Psychology:** The required core courses for the Psychology Major may be completed with evening or summer classes. Many core courses are offered in the evening during each academic year as well as some elective courses. Internships and independent study courses, however, are only offered in fall and spring day classes.

**HONORS Program:** The HONORS program is designed to increase opportunities for students of outstanding ability to engage in independent work and prepare for more challenging futures. It is especially recommended for students planning to pursue graduate education.

Admission to the HONORS program is by application. The closing date for application as well as forms and instructions for completing the application process may be obtained from the Department Office.

AT THE TIME OF *entrance* INTO THE HONORS PROGRAM (NOT THE TIME OF *application*) A STUDENT MUST HAVE:

a) Declared a psychology major

b) Completed 90-credits

c) Completed PS 110, 111, PS 275 and have completed or be currently enrolled in PS 305

d) maintained a Minimum GPA of 3.5 in Psychology and a minimum overall GPA of 3.2

e) Completed a minimum of two full-time semesters in residence at Worcester State College.

Program Requirements:

*PS 480 Advanced Research Methods

PS 405 Independent Study in Psychology

***In PS 480, students design and begin a research project to be completed in PS 405.**

The HONORS project must be completed and presented to the faculty sponsor. Students are required to make an oral presentation on the project in a session open to all faculty and students in the department.

**Concentrations:** Students may choose to simply major in psychology *without* a particular specialization (by completing the Requirements for a Major in Psychology) or may choose to major in psychology *with* a specialization by completing the requirements for a concentration in Mental Health Services, Industrial/Organizational Psychology or Developmental Processes. They may also specialize by completing the requirements for a Consortium Certificate in Gerontology or for an Interdisciplinary Concentration in Women's Studies.

**Requirements for a Major in Psychology, Concentration in Mental Health Services:** 39 credits.

This concentration prepares graduates for employment in agencies serving mental health needs of special populations, including retarded, addicted, and emotionally impaired. In addition to the four core and four specified area psychology courses, the following courses are required:

| | |
|---|---|
| PS 330 | Theories of Personality |
| PS 335 | Abnormal Psychology |
| PS 340 | Introduction to Psychometrics |
| PS 400 | Internship in Psychology (3 hours) |
| | or PS 318 Behavior Management |
| | or PS 315 Physical ad Sexual Abuse |
| PS 435 | Clinical Psychology |
| PS 492 | Capstone in Mental Health |

**Requirements for a Major in Psychology, Concentration in Industrial/ Organizational Psychology:** 45 credits.

The Industrial/Organizational Psychology concentration is for those students who desire to focus on organizational settings by applying psychological theory and methodology to the solution of a wide variety of human problems. They range from selection and training to employer-employee interactions to organizational development. The Leadership program is designed as preparation for entry-level career jobs or specialization in industrial/ organizational graduate studies. In addition to the four core and four specified area psychology courses, the following courses are required:

| | |
|---|---|
| PS 360 | Industrial/Organizational Psychology |
| PS 365 | Leadership Development |
| PS 400 | Internship in Psychology |
| PS 460 | Advanced Industrial/Organizational Psychology |

and any two of the following:

| | |
|---|---|
| PS 250 | Social Psychology |
| PS 340 | Introduction to Psychometrics |
| PS 350 | Group Dynamics |

**Requirements for a Major in Psychology, Concentration in Developmental Processes:** 36 to 42 credits.

This concentration provides background for students planning careers related to developmental disabilities, special education, child and adolescent services, or hospital and nursing home programs for the disabled or aging. Developmental Process is especially recommended for students in education.

The four core and four specified area psychology courses are required plus:

| | |
|---|---|
| PS 210 | Child Growth and Development |
| PS 215 | Psychology of Adolescence |
| | or PS 220 Psychology of Aging |
| PS 325 | Psychology of Learning |
| | or PS 345 Cognitive Psychology |
| PS 380 | Physiological Psychology |

PS 410 Seminar in Developmental Processes

and three electives selected from the following:

PS 310 Development of Exceptional Children and Youth
PS 318 Behavior Management
PS 320 Development of Thinking and Knowing
PS 355 Social and Personality Development
PS 400 Internship in Psychology

PS 400 Internship in Psychology is recommended for any student who has not had an appropriate fieldwork experience.

**Requirements for a Major in Psychology Consortium Certificate in Gerontology:** Students are eligible to earn a certificate in gerontology from the Worcester Consortium for Higher Education while also completing requirements for the Psychology major. Students can obtain a copy of the recommended course of study in Room A103.

**RECOMMENDED COURSE OF STUDY**

**Required Psychology Courses:**

| | | |
|---|---|---|
| PS 110 | General Psychology I | 3 credits |
| PS 111 | General Psychology II | 3 credits |
| PS 300 | Psychological Statistics | 3 credits |
| PS 305 | Psychological Methods | 3 credits |

**Recommended Courses for the Areas of Psychology Requirements:**

**Development:**

| | | |
|---|---|---|
| *PS 220 | Psychology of Aging | 3 credits |

**Biopsychosocial Processes:**

| | | |
|---|---|---|
| PS 485 | Introduction to Neuropsychology | 3 credits |

**Personality and Abnormal Psychology:**

| | | |
|---|---|---|
| PS 335 | Abnormal Psychology | 3 credits |

**Social Psychology:**

| | | |
|---|---|---|
| PS 250 | Social Psychology | 3 credits |

**Electives:**

| | | |
|---|---|---|
| *PS 400 | Internship in Psychology internship in a psychology-oriented gerontological setting for 2 semesters | 6 credits |
| PS 222 | Introduction to Health Psychology | 3 credits |
| *PS 315 | Physical and Sexual Abuse | 3 credits |

***fulfills Gerontology Consortium Requirements***

**Required Courses for the Gerontology Certificate:**

**Sociology of Aging**
**Aging in Society** (which can be taken at Assumption College, Clark University or Holy Cross) 3 credits

**or**

**UR 202** **Aging in a Metropolitan Society** or
**UR 216** **Women and Aging in the Urban Environment** (at Worcester State College — can fulfill core distribution credits for Social Sciences)

**Aging and Health** (offered at UMass Medical School) 3 credits

**Policy an Aging at Holy Cross** or
**UR 352 Policy Planning for an Aging Society** 3 credits
(either can fulfill core distribution credits for Social Sciences.)

**Total 45 credits**

**Requirements for a Major in Psychology, Interdisciplinary Concentration in Women's Studies:** 15 credits. Psychology majors may elect an interdisciplinary concentration beyond the requirements of the Psychology major. Five courses may be selected from the following:

| | | |
|---|---|---|
| EN | 172 | Women and Literature |
| EN | 174 | Women Poets |
| EN | 345 | Women in American Literature |
| HE | 210 | Women's Health Issues |
| HI | 270 | Writing on Feminism in Historical Perspective |
| HI | 271 | Women and Work in Historical Perspective |
| HI | 272 | Evolution of Women's Rights |
| HI | 273 | Ideas of Men and Women in Historical Perspective |
| PS | 263 | Psychology of Women |

Students may choose to minor in psychology without a particular specialization (by completing the Requirements for a Minor in Psychology) or may choose to minor in psychology with a specialization by completing the requirements for a minor in Developmental Disabilities Psychology or a minor in Industrial/Organizational Psychology.

**Requirements for a Minor in Psychology:** The Psychology minor requires successful completion of six courses in Psychology. Two courses are specific requirements, the remaining four are electives. The minimum 18 credits must include the following two courses plus electives:

| | | |
|---|---|---|
| PS | 110 | General Psychology I |
| PS | 111 | General Psychology II |

and 12 credits in psychology elective

**Requirements for a Minor in Developmental Disabilities Psychology:** 18-21 credits. This minor is intended for students whose vocational goals include work with the developmentally disabled. Required courses include:

| | | |
|---|---|---|
| PS | 110 | General Psychology I |
| PS | 111 | General Psychology II |
| PS | 210 | Child Growth and Development **or** |
| PS | 215 | Psychology of Adolescence |
| PS | 310 | Development of Exceptional Children/Youth |
| PS | 318 | Behavior Management Techniques |
| PS | 485 | Introduction to Neuropsychology |

**Requirements for a Minor in Industrial/Organizational Psychology:** 21 credits including:

| | | |
|---|---|---|
| PS | 110 | General Psychology I |
| PS | 111 | General Psychology II |
| PS | 275 | Psychological Statistics |
| PS | 340 | Introduction to Psychometrics |
| PS | 350 | Group Dynamics |
| PS | 360 | Industrial/Organizational Psychology |
| PS | 385 | Motivation |

# Psychology Courses (Undergraduate)

### PS 110 General Psychology I

Introduction to psychological principles and survey of several areas including: history of psychology; scientific method; brain and nervous system; development; learning and memory; motivation; and sensation and perception.
*Offered every year. 3 credits.*

## PS 111 General Psychology II

*Prerequisite: PS 110*

A continuation of the introductory course with emphasis on personality theory; psychopathology; psychotherapy; cognition and language; intelligence; social behavior and careers in psychology.
*Offered every year. 3 credits.*

## PS 210 Child Growth and Development

*Prerequisite: PS 110*

Physical, social, emotional, intellectual, and moral development from conception to adolescence is examined within a framework of various theories.
*Offered every year. 3 credits.*

## PS 215 Psychology of Adolescence

*Prerequisite: PS 110*

The mental, emotional, social and physical changes of contemporary adolescence are examined with emphasis on family, peer and school influences.
*Offered every year. 3 credits.*

## PS 220 Psychology of Aging

*Prerequisite: PS 110*

Adulthood and old age are studied with special emphasis on current developmental theories.
*Offered every year. 3 credits.*

## PS 222 Introduction to Health Psychology

*Prerequisites: PS 110, PS 111*

Introduction to the areas and methods of Health Psychology. Topics include: epidemiology, behavior change, compliance, alternative medicine, healing, chronic illness.
*Offered every 2 years. 3 credits.*

## PS 250 Social Psychology

*Prerequisite: PS 110, PS 111*

The psychological dynamics of social interaction including verbal and nonverbal communication, group dynamics and attitude formation and change.
*Offered every year. 3 credits.*

## PS 252 Applied Social Psychology

*Prerequisite: PS 110, PS 111*

Survey of applied social psychology including: psychology in educational, organizational, and legal settings; diversity, environmental, health, media, and consumer issues.
*Offered every year. 3 credits.*

## PS 255 Psychological Foundations of Diversity

Explores the gender, racial/ethnic, multiple-group membership, cultural, social class, religious, disability and sexual orientation facets of diversity.
*Offered every 3 years. 3 credits.*

## PS 260 Psychology of Human Sexuality

*Prerequisite: PS 110*

Sexuality as a foundation of personality. The wide range of human sexuality is explored; sexual development, roles, attitudes and behaviors.
*Offered every 2 years. 3 credits.*

## PS 263 Psychology of Women

*Prerequisite: PS 110*

Women's psychological development throughout the lifespan will be examined, including female development, achievement, stereotyping, stress, violence and psychological disorders.
*Offered every 2 years. 3 credits.*

## PS 275 Psychological Statistics

*Prerequisites: PS 110, PS 111*

Data tabulation; graphing; measurement of central tendency, variability and correlation; hypothesis testing applied to psychological and sociological data. Hand and computer analysis..
*Offered every year. 3 credits.*

## PS 280 Sensation and Perception

*Prerequisite: PS 110*

Selected sensory and perceptual processes are studied in the context of current theory and research.
*Offered every 2 years. 3 credits.*

## PS 295 Special Topics in Psychology

*Prerequisites: PS 110, PS 111*

Selected areas of mutual interest to instructor and students. Topics and prerequisites are announced in advance.
*Offered every year. 3 credits.*

## PS 305 Research Methods

*Prerequisites: PS 110, PS 111, PS 275*

The design, conduct, analysis and reporting of research are stressed. A broad range of laboratory experiments and demonstrations are conducted.
*Offered every year. 3 credits.*

## PS 306 Applied Survey and Field Methods

*Prerequisites: PS 305*

Design, conduct, and analyze field research including questionnaire and interview surveys with diverse populations in social service and business settings.
*Offered every 2 years. 3 credits.*

## PS 310 Development of Exceptional Children/Youth

*Prerequisites: PS 110, PS 111*

Characteristics and needs of children with exceptionalities including behavior retardation, giftedness, physical or sensory disabilities, emotional or social maladjustments.
*Offered every 2 years. 3 credits.*

## PS 315 Physical and Sexual Abuse

*Prerequisites: PS 110, PS 111*

Etiology, characteristics, consequences, treatment, and prevention of various forms of physical, sexual, and emotional abuse in children, adolescents, and adults.
*Offered every 2 years. 3 credits.*

## PS 318 Behavior Management Techniques

*Prerequisites: PS 110, PS 111*

Considers the basic concepts of behavior management, including behavior modification for exceptional and normal populations.

*Offered every year. 3 credits.*

## PS 320 Development of Thinking and Knowing

*Prerequisites: PS 110, PS 210*

This course will examine human development of thinking and knowing from the Piagetian/Neo-Piagetian, Information Processing and Sociocultural Perspectives.
*Offered every year. 3 credits.*

## PS 325 Psychology of Learning

*Prerequisite: PS 110*

Learning as a fundamental concept in understanding behavior; examines principles and theories of learning, emphasizing experimental findings.
*Offered every year. 3 credits.*

## PS 330 Theories of Personality

*Prerequisites: PS 110, PS 111*

A survey of major theories of personality. Why people behave as they do is explored through the different theories.
*Offered every year. 3 credits.*

## PS 335 Abnormal Psychology

*Prerequisite: PS 110, PS 111*

Etiology, dynamics, and treatment of psychopathology and their relation to normal personality are considered from traditional and contemporary perspectives.
*Offered every year. 3 credits.*

## PS 340 Introduction to Psychometrics

*Prerequisites: PS 110, PS 111, PS 275*

Methods and instruments used in the evaluation of the psychological attributes of human beings.
*Offered every year. 3 credits.*

## PS 345 Cognitive Psychology

*Prerequisite: PS 110, PS 111*

This course introduces students to areas of cognitive psychology including memory, language processing and decision making.
*Offered every year. 3 credits.*

## PS 350 Group Dynamics

*Prerequisite: PS 110*

Group process deals with the basic issues of leadership, membership, developmental stages and types of groups, theoretically and experientially.
*Offered every year. 3 credits.*

## PS 355 Social and Personality Development

*Prerequisites: PS 110, PS 210*

This course will examine social and personality development from Piagetian, Neo-Piagetian and Sociocultural perspectives.
*Offered every year. 3 credits.*

## PS 360 Industrial/Organizational Psychology

*Prerequisite: PS 110*

A concentration on the work of the psychologist in industry/business and other organizational settings in the public and private sectors.
*Offered every year. 3 credits.*

## PS 365 Leadership Development

*Prerequisites: PS 100, PS 111*

Introduces effective models of organizational leadership. Provides opportunity for the student to develop his or her unique leadership voice and vision.
*Offered every year. 3 credits.*

## PS 380 Physiological Psychology

*Prerequisites: PS 110, PS 111*

Psychobiological problems; current physiological research in emotion, motivation and learning and the use of physiological methods in psychology.
*Offered every 2 years. 3 credits.*

## PS 385 Motivation

*Prerequisites PS 110, 111*

A study of conditions that arouse, direct and sustain behavior. Topics include: goals, competence, control, arousal, self-esteem, achievement and stress.
*Offered every year. 3 credits.*

## PS 390 History and Systems of Psychology

*Prerequisites: PS 110, PS 111*

An historical perspective, tracing the development of psychology into a science.
*Offered every year. 3 credits.*

## PS 400 Internship in Psychology

*Prerequisite: Consent of Instructor*

Provides opportunity to advanced students to increase experience through internship with sponsoring community organization, institution, or business under appropriate supervision.
*Offered every year. 1-3 credits*

## PS 405 Independent Study in Psychology

*Prerequisites: PS 110, PS 111, PS 275, PS 305, Consent of Instructor*

Student will pursue an area of special interest through research or field work under close supervision of a faculty member.
*Offered every year. 1-6 credits.*

### PS 410 Seminar in Developmental Psychology

*Prerequisites: PS 110, PS 111, PS 210 or PS 215*

Patterns of physical, mental and emotional development are explored with emphasis on independent work.
*Offered every year. 3 credits.*

### PS 435 Clinical Psychology

*Prerequisites: PS 110, PS 111, PS 335*

Practical issues, methods and techniques of current psychotherapies with emphasis on psychoanalytic, client-centered, and behavioral approaches.
*Offered every year. 3 credits.*

### PS 460 Advanced Industrial/Organizational Psychology

*Prerequisites: PS 360, any two of PS 250, PS 340, PS 350, PS 385*

An in-depth exploration of selected topics from the field of Industrial/Organizational Psychology.
*Offered every year. 3 credits.*

### PS 480 Advanced Research Methods

*Prerequisites: PS 110, PS 111, PS 305*

Laboratory procedures and techniques on an advanced level applied to selected independent projects.
*Offered every 3 years. 3 credits.*

### PS 485 Introduction to Neuropsychology

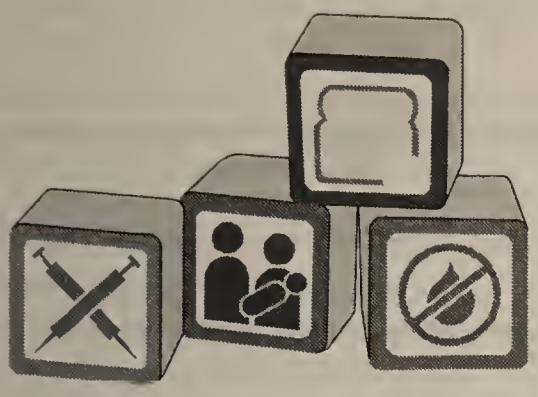
*Prerequisites: PS 110, PS 111*

Human brain behavior relationships; neurological correlates of attention, cognition, perception, consequences of damage upon behavior.
*Offered every 2 years. 3 credits.*

### PS 492 Seminar in Mental Health

*Prerequisites: PS 330, PS 335 and either PS 340 or PS 435*

This capstone seminar emphasizes knowledge and experiential skill-building necessary for entry into the field of Mental Health Services.
*Offered every year. 3 credits.*



# Sociology

## Department of Sociology

## Faculty

Francis L. Brooker, Associate Professor (1970)
A.B., Brandeis University; M.A., Northeastern University

Corey W. Dolgon, Associate Professor (1997), Department Chair
B.A., Boston University; M.A., Baylor University; Ph.D., University of Michigan

Leontina M. Hormel, Assistant Professor (2004)
B.A., Eastern Washington University; M.A., University of Oregon;
Ph.D., University of Oregon

Paul Prew, Assistant Professor (2005)
B.A., University of Wisconsin at LaCrosse; M.A., Minnesota State at Mankato;
Ph.D., University of Oregon

The sociology curriculum is designed to provide students with an appropriate frame of reference, through the systematic study of human society, for both social participation and the scientific evaluation of human behavior. The major begins the preparation of students who plan careers in sociology or related areas such as social work.

**Admission Requirements:** Admission to the Sociology major is based on maintaining acceptable grades in the general foundation requirements and interest in the field of sociology. Interested persons may contact the Chair of the Sociology Department for further information. Upon admission, each major is assigned an advisor and receives an orientation in sociology.

**Requirements for a Major in Sociology:** 30 credits including:

| | |
|---|---|
| SO 100 | Introduction to Sociology |
| SO 270 | Social Theory I |
| SO 275 | Social and Behavioral Statistics |
| SO 280 | Research Methods of Sociology |

A maximum of two courses at the 100 level
A minimum of three courses at the 300 and/or 400 level

All courses taken beyond the minimum requirements will be credited as electives.

**Requirements for a Minor:** 18 credits including:

| | |
|---|---|
| SO 100 | Introduction to Sociology or |
| SO 110 | Cultural Anthropology |

All prerequisites for 300 and 400 level courses must be met if the student wishes to elect courses at these levels.

# Sociology Courses

## SO 100 Introduction to Sociology

Introduction to the scientific study of social life through the identification and analysis of regularized patterns of human behavior and relationships.
*Offered every year. 3 credits.*

## SO 110 Cultural Anthropology

Cross cultural analysis of the human capacity, for adaptation and technological and ideological development. Significant field studies will be examined.
*Offered every year. 3 credits.*

## SO 130 Race, Ethnicity and Gender

An introduction to dominant-minority group relations through the investigation of the patterns and dynamics of differentiation, inequality and discrimination.
*Offered every 3 years. 3 credits.*

## SO 190 Sport and Society

Analysis of sport as a social system. The implication of sport within interrelational contexts of other social systems.
*Offered every 2 years. 3 credits.*

## SO 199 Special Topics

*Prerequisite: SO 100*

Introductory level topics. Topic announced at pre-registration.

*Offered every 3 years. 3 credits.*

## SO 200 Contemporary Social Problems

*Prerequisite: SO 100 or SO 110*

Analysis of social, political, urban, and industrial changes which have introduced specific problems into contemporary society.
*Offered every year. 3 credits.*

## SO 205 Issues in American Society

*Prerequisite: SO 100*

Identification and analysis of current social issues facing contemporary American society, and critique of policies and programs designed to resolve these issues.
*Offered every 2 years. 3 credits.*

## SO 215 Medical Sociology

*Prerequisite: SO 100 or SO 110*

The structure of health care delivery systems and role interaction between levels of health care personnel, patients, and families of patients.
*Offered every year. 3 credits.*

## SO 220 Sociology of the Family

*Prerequisite: SO 100 or SO 110*

A comparative approach to the study of family systems with emphasis on the changing patterns of family life.
*Offered every year. 3 credits.*

## SO 225 Family in Middle Eastern Societies

*Prerequisite: SO 100*

Study of family systems in the Middle East and the forces of change affecting traditional family patterns.
*Offered every 3 years. 3 credits.*

## SO 230 Political Sociology

*Prerequisite: SO 100 or SO 110*

Foundations of social movements in political phenomena, social conditions and emerging political institutions; the structural basis of social change and politics.
*Offered every 3 years. 3 credits.*

## SO 240 Sociology of Education

*Prerequisite: SO 100 or SO 110*

Study of modern educational systems, emphasizing the social, political and economic factors that influence its organization and its functions.
*Offered every 2 years. 3 credits.*

## SO 250 Sociology of Religion

*Prerequisite: SO 100 or SO 110*

A cross-cultural comparative study of the nature of religious institutions as systems of socially determined and socially relevant beliefs and practices.
*Offered every 2 years. 3 credits.*

## SO 270 Social Theory I

*Prerequisite: SO 100 or SO 110*

Fundamental concepts and intellectual traditions, especially the contributions of Comte, Spencer, Marx, Toennes, Durkheim, and Simmel.
*Offered every year. 3 credits.*

## SO 275 Social and Behavioral Statistics

*Prerequisites: SO 100 and any 200 Sociology Course; SO 280 recommended*

Data tabulation; graphing; measurement of central tendency, variability, and correlation; hypothesis testing applied to psychological and sociological data. Hand and computer analysis.
*Offered every year. 3 credits.*

## SO 280 Research Methods of Sociology

*Prerequisite: SO 100 or SO 110*

An analysis of the research function in sociology; the conduct of research appropriate to undergraduate students; the formal presentation of research papers.
*Offered every year. 3 credits.*

## SO 299 Special Topics

*Prerequisite: SO 100*

Intermediate level topics. Topic announced at pre-registration.
*Offered every 3 years. 3 credits.*

## SO 300 Social Change

*Prerequisites: Two courses at 200-level*

A study of the conditions, patterns, and consequences of social transformations with emphasis on institutional and individual patterns of adjustment and adaptation.
*Offered every 3 years. 3 credits.*

## SO 305 Applied Sociology and Community Research

*Prerequisites: SO 100, SO 280; SO 275 recommended*

Explores the theory and methods of applied sociology, including ethnographic, institutional, participatory research techniqes in community settings.
*Offered every 3 years. 3 credits.*

## SO 310 Formal Organizations

*Prerequisites: Two courses at 200-level*

The structure and function of, and communications systems within, formal and complex organizations; primary focus on theoretical aspects of organizations.
*Offered every 3 years. 3 credits.*

## SO 315 Collective Behavior

*Prerequisites: Two courses at 200-level*

Processes by which new norms and forms of social organization emerge from group behavior, aggregate behavior, and social movements.
*Offered every 3 years. 3 credits.*

## SO 330 Criminology

*Prerequisites: Two courses at 200-level*

Theoretical perspective on crime, criminals and the social aspects of interrelationships within, and between the components of the criminal justice system.
*Offered every year. 3 credits.*

## SO 335 Juvenile Delinquency

*Prerequisites: Two courses at 200-level*

Dynamics of small group involvement and other environmental influences in the shaping of an individual's personality.
*Offered every 3 years. 3 credits.*

## SO 340 Social Psychology

*Prerequisites: Two courses at 200-level*

Dynamics of small group involvement and other environmental influences on the shaping of an individual's personality.
*Offered every year. 3 credits.*

## SO 345 Sociology of Deviance

*Prerequisites: Two courses at 200-level*

Study of the nature and consequences of deviant behavior with emphasis on socialization, social relationships, and patterns of social control.
*Offered every 3 years. 3 credits.*

## SO 350 Social Stratification

*Prerequisites: Two courses at 200-level*

Investigation of the recurrent patterns of social differentiation, social ranking, and the unequal distribution of rewards.
*Offered every 2 years. 3 credits.*

## SO 360 Urban Sociology

*Prerequisites: Two courses at 200-level*

A cross-cultural study of urban social systems and the phenomena and problems connected with the planning process.
*Offered every 2 years. 3 credits.*

## SO 375 Contemporary Social Theory

*Prerequisites: SO 270*

Review of sociological theories, analytical tools, and conceptual schemes prevalent in contemporary debate and consensus.
*Offered every 3 years. 3 credits.*

## SO 400 Independent Study

*Prerequisites: Eight prior courses in sociology or consent of instructor*

For advanced sociology majors only; topic to be approved by an independent study advisor.
*Offered every year. 1-6 credits.*

## SO 410 Field Work

*Prerequisites: Eight prior courses in sociology or consent of instructor*

Data collection based on participant observation within a social service organization; assignment approval by field work advisor.
*Offered every year. 1-6 credits.*

## SO 420 Seminar in Sociology

*Prerequisites: Eight prior courses in sociology or consent of instructor.*

Advanced study topics in selected areas of sociology; announcement made at pre-registration time.
*Offered every 3 years. 1-3 credits.*

# Spanish
## Department of Languages and Literature

## Faculty

Guillermina Elissondo, Associate Professor (1999)
B.A., Universidad Católica de Mar del Plata, Argentina; M.A., Michigan State University; Ph.D., University of North Carolina – Greensboro

Judith Jeon-Chapman, Associate Professor (1993)
B.A., College of St. Benedict; M.A., Ph.D., University of Washington

Patricia A. Marshall, Assistant Professor (2004)
B.A., Colby College; M.A., Ph.D., Brown University

Juan Orbe, Associate Professor (1996)
Universidad Nacional de La Plata, Argentina; M.A., Ph.D., Michigan State University

Courses in Spanish are designed for students whose interests and career plans have an international or multi-ethnic focus. Students who major or minor in a language will develop listening, speaking, reading, and writing fluency and will study the culture, history and literature of the people who use the language. Alpha Mu Gamma, a national honor society in foreign languages, recognizes excellence in the study of foreign languages. Any Worcester State College student who receives two "A's" in Spanish, or two "A's" in French, at any level and who has a 3.0 cumulative GPA is eligible to join. Application for membership is in early February. Contact Professor Judith Jeon-Chapman.

The Major in Spanish: The major in Spanish is designed to offer students the opportunity to consolidate their study of the language with a related field of study. Students who major in Spanish can choose to concentrate on 1) the Standard Spanish Major, 2) K-12 Teaching Certification in Spanish or 3) Spanish for the Professions. All of these programs have been configured to maximize the potential of the student in today's professional climate as well as to prepare the student for admittance into graduate programs at other institutions. Students who major in Spanish will develop fluency in listening, speaking, reading and writing skills and will study the culture, history and literature of Spain and the Americas.

Study-Abroad opportunities are available for language study in several Spanish-speaking countries.

**Requirements for a Major in Spanish:** 36 credits including:

| | |
|---|---|
| SP 210-211 | Intermediate Spanish courses (6 credits maximum: These courses may be waived by oral and/or written examination) |
| SP 321 | Advanced Spanish Composition I * |
| SP 322 | Advanced Spanish Composition II |
| SP 323 | Advanced Spanish Conversation I ** |
| SP 326 | Spanish for the Professions |
| SP 331 | Spanish Civilization |
| SP 332 | The Hispanic World Today or SP 333 The Hispanic Presence in the United States |

Spanish Literature classes (6 credits minimum)
Spanish Electives in Advanced Language, Civilization or Literature

Students must demonstrate competency in a second foreign language at the **elementary** level.

* *Required of all students unless exempted by the Department of Languages and Literature.*

***This course is a required course for all non-native Spanish speakers.*

*(Students with advanced knowledge of Spanish should begin at 300-level)*

**Concentration in Spanish/Education: (36 credits)** Students who wish to receive Teacher Certification in Spanish must complete all of the requirements for the Standard Spanish Major as well as the requirements established by the Education Department. The course of study which leads to teaching certification is in Secondary Education. In addition, students pursuing a Teaching Certificate in grades 5-12 must complete: **SP 355 The Effective Teaching of a Foreign Language as well as *one additional* literature course.**

Students must also demonstrate competency in a second foreign language at the intermediate level.

**Concentration in Spanish for the Professions: (36 credits)**

This concentration must be completed in conjunction with a minor or major in another field. The concentration in Spanish for the Professions is recommended for students with a second major or minor for whom a college-level command of the language significantly enhances opportunities for graduate school and/or employment. This course of study must be approved by the department.

**Required courses:**

| | |
|---|---|
| SP 210-211 | Intermediate Spanish courses (6 credits maximum: These courses may be waived by oral and/or written examination) |
| SP 321 | Advanced Spanish Composition I* **and/or** SP 322 Advanced Spanish Composition II |
| SP 323 | Advanced Spanish Conversation I** |
| SP 326 | Spanish for the Professions |
| SP 327 | Projects and Issues in Spanish for the Professions |
| SP 331 | Spanish Civilization |
| SP 332 | The Hispanic World Today or SP333 The Hispanic Presence in the United States |

Spanish Literature classes (3 credits minimum)
Internship in Spanish (3 credits minimum)
Spanish Electives in Advanced Language, Civilization, Literature, Internship or Special Topics in Spanish for the Professions

There is no second foreign language requirement for this concentration.

**Required of all students unless exempted by the Department of Languages and Literature.*

***This course is a required course for all non-native Spanish speakers.*

**Requirements for a Minor in Spanish:** 18 credits including:
SP 100-299, beginning and intermediate courses (12 credits maximum)
SP 300-499, advanced courses (6 credits minimum)

(Students with advanced knowledge of Spanish should begin at 300-level)

# Spanish Courses

### SP 101 Beginning Spanish I

Basic oral and written proficiency for daily communication; may be taken as a self-contained unit or as a basis for further development. Audio-visual method.
*Offered every year. 3 credits.*

### SP 102 Beginning Spanish II

*Prerequisite: SP 101 or equivalent*

Continuation of SP 101.
*Offered every year. 3 credits.*

### SP 210 Intermediate Spanish I

*Prerequisite: SP 102 or equivalent*

Conversational patterns, idioms, dialogues, and special vocabularies for daily life situations.
*Offered every year. 3 credits.*

### SP 211 Intermediate Spanish II

*Prerequisite: SP 210 or equivalent*

Continuation of SP 210.
*Offered every year. 3 credits.*

### SP 321 Advanced Spanish Composition I

*Prerequisite: Two SP 200 level courses*

Facility in prose reading and writing; study of style of selected authors; variety of expression through word discrimination, and advanced grammatical structures.
*Offered every 3 years. 3 credits.*

### SP 322 Advanced Spanish Composition II

*Prerequisite: SP 321 or equivalent*

Continuation of SP 321.
*Offered every 3 years. 3 credits.*

### SP 323 Advanced Spanish Conversation I

*Prerequisite: Two SP 200 level courses.*

Intensive conversational practice for improving intonation, pronunciation, fluency, review of language usage. This course is for non-native Spanish speakers only.
*Offered every 3 years. 3 credits.*

### SP 324 Advanced Spanish Conversation II

*Prerequisite: SP 323 or equivalent.*

Continuation of SP 323.
*Offered every 3 years. 3 credits.*

### SP 326 Spanish for the Professions

*Prerequisite: SP 321, SP 323 or instructor's approval.*

Intensive practice with language and documents used in private and public sectors including business, medicine, communication, education and social services.
*Offered every 2 years. 3 credits.*

### SP 327 Projects and Issues in Spanish for the Professions

*Prerequisite: SP 321, SP 323, SP 324 or instructor's approval.*

Close study of selected projects and bicultural issues for Spanish professionals.
*Offered every 3 years. 3 credits*

### SP 331 Spanish Civilization

*Prerequisite: Two SP 200 level courses*

A historical survey of Spanish social, cultural, and political life. Conducted in Spanish.
*Offered every 3 years. 3 credits.*

### SP 332 The Hispanic World Today

*Prerequisite: Two SP 200 level courses*

Social, economic and political institutions; value systems and customs. Conducted in Spanish.
*Offered every 3 years. 3 credits.*

### SP 333 The Hispanic Presence in the United States

*Prerequisite: Two SP 200 level courses*

Sociocultural study of Hispanics in the United States, with a focus on major contemporary issues. Conducted in Spanish.
*Offered every 3 years. 3 credits.*

### SP 341 Readings in Spanish Literature

*Prerequisite: SP321, SP 323, SP 324 or instructor's approval.*

Selected masterpieces from Middle Ages to present; social, cultural, and stylistic features of different periods. Recommended as a first course in Spanish literature.
*Offered every 3 years. 3 credits.*

### SP 342 Introduction to Latin American Literature I

*Prerequisite: SP 321, SP 323, SP 324 or instructor's approval.*

Study of the literature produced in Latin America from the pre-Columbian era until the first wars of independence.
*Offered every 3 years. 3 credits*

### SP 343 Poetry and Theatre of Spain's Golden Age

*Prerequisite: SP 321, SP 323, SP 324 or instructor's approval.*

Study of the poetry and drama created during the Renaissance and Baroque periods, known as the Golden Age of Spanish letters.
*Offered every 3 years. 3 credits*

### SP 348 Contemporary Spanish Literature

*Prerequisite: SP 321, SP 323, SP 324 or instructor's approval.*

Literary works from the generation of 1898 to the present.
*Offered every 3 years. 3 credits.*

### SP 349 Spanish-American Literature

*Prerequisite: SP 321, SP 323, SP 324 or instructor's approval.*

Representative works from South and Central American authors from the colonial period to the present.
*Offered every 3 years. 3 credits.*

### SP/ED 355 Effective Teaching of a Foreign Language

*Prerequisite: SP 321, SP 323, SP 324, ED 251, 270, 351 or 352 or instructor's approval.*

Examines and evaluates effective teaching techniques and strategies as well as second-language acquisition theory for middle/secondary foreign language classrooms.
*Offered every 3 years. 3 credits*

### SP 390 Spanish for Native Speakers

This course will explore contemporary issues as a basis for further development of the Spanish language skills of native speakers.
*Offered every 3 years. 3 credits*

### SP 401 Advanced Study: Special Topics

*Prerequisite: For advanced students*

Special topics in language, literature, civilization or field work of mutual interest to student and instructor.
*Offered every 3 years. 3 credits.*

### SP 402 Independent Study in Spanish

*Prerequisite: Consent of instructor*

Study of a special topic. Both content and eligibility are subject to departmental guidelines and approval.
*Offered every year. 1-6 credits.*

## SP 403 Teaching Assistantship in Spanish

*Prerequisite: Consent of instructor*

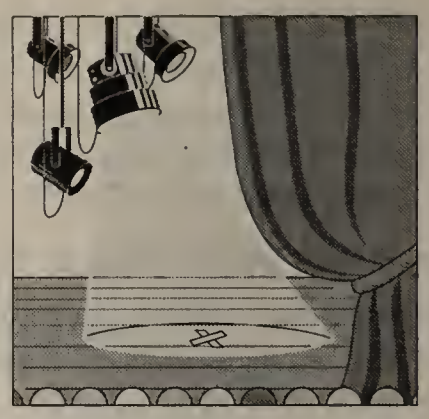
Teaching Assistants in Spanish will regularly attend the beginning or intermediate-level Language classes to which they are assigned to assist the professor.
*Offered every year. 3 credits.*

## SP 475 Internship in Spanish

*Prerequisite: Consent of instructor and department*

Provides majors practical experience in areas where their speaking, reading, and writing skills may be applied.
*Offered every year. 3 credits.*

***Note:** Courses in other foreign languages such as German, Latin, Russian, Chinese, Hebrew and Arabic are offered when demand warrants and staffing permits.*



# Theatre
## Department of Visual and Performing Arts

### Faculty

John H. Hood, Assistant Professor (2004)
B.F.A., Arizona State University; M.F.A., University of Minnesota

Patrick Tangredi, Assistant Professor (2005)
M.F.A., Tulane University; B.A., Massachusetts College of Liberal Arts

The theatre program offers courses in theatre history, children's theatre, design and performance. Mainstage productions, some in cooperation with the music program, are produced on a regular basis. Advanced students are encouraged to stage their own laboratory shows and also to intern with local theatre companies. The theatre faculty teaches interdisciplinary courses with faculty from Art and Music.

All courses offered by this discipline can be used to fulfill the Fine Arts distribution.

**Requirements for Minor in Theatre:** 18 credits comprised of the following courses: TH 191 Introduction to the Theatre; TH 245 Acting I; TH 275 Introduction to Stagecraft and Design; and TH 321 Rehearsal and Performance, and two other 3 credit-hour theatre classes.

## Theatre Courses

### TH 135 Oral Interpretation of Literature

Techniques of reading aloud and staging non-dramatic literature; e.g., short stories, poetry, etc. The student analyzes selections and then performs them in class.
*Offered every year. 3 credits.*

### TH 191 Introduction to Theatre

An overview of live performance, with the emphasis on audience appreciation. Performance arts and crafts are examined.
*Offered every year. 3 credits.*

### TH 192 Creative Dramatics

Principles and techniques of leading improvised dramatic activity, particularly with children. Involves sensory awareness, imagination, movement, and story dramatizations.
*Offered every year. 3 credits.*

### TH 236 History of Theatre I

Survey of world theatre from Golden Age of Athens to Restoration England, including brief overview of Asian theatre.
*Offered every 2 years. 3 credits.*

### TH 237 History of Theatre II

Survey of western theatre from eighteenth to twentieth century, with reference to roots and developments in other world cultures.
*Offered every 2 years. 3 credits.*

### TH 245 Acting I

*Prerequisite: TH 135*

Basic acting theory and practice. Students present brief monologues and scenes on stage.
*Offered every year. 3 credits.*

### TH 260 Designing for Theatre I

*Prerequisite: VP 200 or AR 111 or AR 213*

An introduction to scenic, costume, and lighting design. Historical and artistic research, rendering and design production practicum.
*Offered every 2 years. 3 credits.*

### TH 270 History of American Entertainment I

An historical survey of American popular entertainments from the Colonial period through the rise of the nineteenth century melodrama.
*Offered every year. 3 credits.*

### TH 271 History of American Entertainment II

An historical survey of American popular entertainments from the rise of realism through the great American musicals.
*Offered every year. 3 credits.*

### TH 275 Introduction to Stagecraft and Design

Basic theories of scenic, costume, and lighting design with practicum.
*Category 1. 3 credits.*

### TH 276 Costume and Makeup for Performance

Basics of historical research and design, applicable to both stage and screen work. Practicum in constructing costumes and applying makeup.
*Offered every 3 years. 3 credits.*

### TH 290 Theatre for Children

Organization of children's theatre, script selection, and visual design. Alternate performance spaces such as classrooms and parks emphasized.
*Offered every 3 years. 3 credits.*

### TH 321 Rehearsal and Performance

*Prerequisite: Admission by audition*

Public performance of full-length stage productions under faculty direction. Students assume performance and/or production "roles" as described in departmental manual.
*Offered every year. 3 credits.*

### TH 346 Acting II

*Prerequisite: TH I35, TH 245*

Further development of basic acting skills with emphasis on stage technique. Some work may be done with directing students in stage or screen projects.
*Offered every 3 years. 3 credits.*

### TH 350 Playwrighting

*Prerequisite: EN 102*

Writing for the stage, both theory and practical exercises. Students complete a one-act play by the end of the course.
*Offered once a year. 3 credits.*

### TH 360 Designing for Theatre II

*Prerequisite: VP 200 or AR 111 or AR 213*

A continuation of Designing for Theatre I with greater emphasis on implementing designs in production.
*Offered every 3 years. 3 credits.*

### TH 380 Directing

*Prerequisite: TH 245*

Script selection, casting, scene analysis, blocking, rehearsal techniques, and other concerns of the theatrical director. Students direct short scene.
*Offered every 3 years. 3 credits.*

# Urban Studies
## Department of Urban Studies

## Faculty

Francis I. Amory, Professor (1977)
A.B., M.A.T., Harvard University; M.S.W., Boston University

Lisa Krissoff Boehm, Associate Professor (2000)
B.A., Northwestern University; M.A., The University of Chicago; Ph.D., Indiana University

Steven H. Corey, Professor (1995), Department Chair
B.A., M.A., University of Rhode Island; Ph.D., New York University

Anne W. Gathuo, Associate Professor (2005)
B.Ed., Kenyatta University; M.B.A., University of Nairobi; Grad Certificate, M.S., Ph.D., University of Massachusetts, Boston

Maureen E. Power, Professor (1975)
A.B., Emmanuel College; M.S.W., Ph.D., Brandeis University

Vincent E. Powers, Professor Emeritus
A.B., M.A., University of Massachusetts; Ph.D., Clark University

Urban Studies is a multi-disciplinary approach to understanding urban life. Urban Studies offers each student a sound base in theory from academic fields tempered by field experience in the real world. Urban Studies graduates have enjoyed outstanding career success in a broad variety of management, policy, and clinical fields because of their multi-disciplinary preparation. Urban Studies graduates are prepared for the fields of Public Administration, Public Policy Analysis, Urban, Regional and Environmental Planning, Gerontology, Health Care Management, Housing Management and Social Work. Students from other majors are welcome to take Urban Studies courses. See Department Chair regarding prerequisites.

**Requirements for the Major:** 36 credits. All Urban Studies majors are required to take the following courses:

| | |
|---|---|
| UR 101 | Introduction to Urban Studies |
| UR 212 | American Metropolitan Evolution |
| UR 213 | Human Identity and the Urban Environment |
| UR 320 | Human Needs and Social Policy |
| UR 401 | Research Seminar in Urban Studies |

Students are encouraged to take community based experiential courses, including practicum and internship. These course credits may not exceed a total of 12, three of which may count towards the major. Students may take the internship after completing 18 credits in the major. The practicum can be taken at any time, upon permission of department.

**Requirements for a major in Urban Studies, Concentration in Public Service and Urban Community Planning: The required courses for the major and 3 of the following:**

| | |
|---|---|
| UR 201 | Analysis of Urban Systems |
| UR 310 | Power, Politics, and Decision-Making in Urban Communities |
| UR 311 | Community Politics and Policies |
| UR 340 | Urban Housing Dilemma |
| UR 361 | Public Policy and Environmental Issues |
| UR 430 | Seminar in Current Urban Problems |

**Requirements for a Major in Urban Studies, Concentration in Health and Human Services: The required courses for the major and 3 of the following:**

| | |
|---|---|
| UR 305 | Group Conflict in the Urban Community |
| UR 311 | Community Politics and Policies |
| UR 321 | Social Work in Urban Society |
| UR 325 | Social Casework in the Urban Setting |
| UR 341 | Urban Health and Social Policy |

**Requirements for a major in Urban Studies, Concentration in Intergenerational Studies and Community Service: The required courses for the major**

| | |
|---|---|
| UR 344 | A Society for All Ages |
| UR 440 | Practicum in Urban Studies |

**and 2 of the following:**

| | |
|---|---|
| UR 202 | Aging and Metropolitan Society |
| UR 216 | Women and Aging |
| UR 321 | Social Work in Urban Society |
| UR 350 | Urban Youth in American Society |
| UR 351 | Public Policy and Youth Services |

**Requirements for a Major in Urban Studies with a concentration in Gerontology: the required courses for the major**

| | |
|---|---|
| PS 220 | Psychology of Aging |

**and 3 of the following :**

| | |
|---|---|
| UR 202 | Aging in Metropolitan Society |
| UR 216 | Women and Aging in the Urban Environment |
| UR 341 | Urban Health and Social Policy |
| UR 352 | Policy Planning for an Aging Society |
| | Aging Policy for a Third Age ***(offered as part of the Consortium Gerontology Studies Program)*** |

**Requirements for a Minor: 18 credits including the following**

| | |
|---|---|
| UR 101 | Introduction to Urban Studies |
| UR 212 | American Metropolitan Evolution |
| UR 213 | Human Identity and the Urban Environment |

Three additional UR 300-level courses

**Requirements for a Minor in Intergenerational Studies and Community Service: 18 credits**

| | |
|---|---|
| UR 101 | Introduction to Urban Studies |
| UR 320 | Human Needs and Social Policy |

| | |
|---|---|
| UR 344 | A Society for All Ages: Intergenerational Community Service |
| UR 400 | Practicum in Urban Studies |
| UR 216 | Women and Aging **or** |
| UR 202 | Aging and Metropolitan Society |
| UR 350 | Urban Youth in American Society **or** |
| UR 351 | Public Policy and Youth Services |

# Urban Studies Courses (Undergraduate)

### UR 101 Introduction to Urban Studies

A broad contextual overview of urban life that examines the relationship of people to their environment from an interdisciplinary perspective.
*Offered every year. 3 credits.*

### UR 103 Introduction to Women's Studies

This course uses a variety of academic disciplines to study the situation of women around the world.
*Offered every 2 years. 3 credits.*

### UR 201 Analysis of Urban Systems

Analysis of activities, programs, and policies designed to sustain and enhance the livability of individuals in an urban environment.
*Offered every 2 years. 3 credits.*

### UR 202 Aging in Metropolitan Society

An introduction to gerontology stressing the social, economic and political aspects of aging in the urban environment.
*Offered every 2 years. 3 credits.*

### UR 212 American Metropolitan Evolution

*Prerequisite: UR 101*

Development of metropolitan America from a multi-disciplinary approach with emphasis upon dynamics of urban growth, internal development of cities, immigrations, socioeconomic stratification, metropolitanization and problems deriving from growth.
*Offered every year. 3 credits.*

### UR 213 Human Identity and the Urban Environment

*Prerequisite: UR 101*

Study of factors affecting identity in contemporary urban settings including race, ethnicity, class, age, and sex categories and roles.
*Offered every year. 3 credits.*

### UR 215 Information Management in Urban Studies

*Prerequisite: UR 101*

Designed to familiarize students with various methods of managing, creating and reporting information.
*Offered every 3 years. 3 credits.*

### UR 216 Women and Aging in the Urban Environment

Investigation of the Aging process for women in urban society, focusing on their great longevity, lower income status, and major caregiving role.
*Offered every 2 years. 3 credits.*

### UR 230 Technology, Public Policy, and Urban Society

Examination of high-technology and its impact on urban society; privacy, ethics, intellectual, property rights, sense of community, and access to information and services.
*Offered every year. 3 credits.*

### UR 290 Gender and the City

Exploration of ways in which gender, both male and female, structures responses of individuals to urban life and spaces.
*Offered every 2 years. 3 credits.*

## UR 301 Cities and Suburbs

*Prerequisite: UR 101*

Multidisciplinary study of city-suburban growth patterns and problems both of the past, and those that hamper metropolitan cooperation and affect the quality of life of both city and suburban residents and businesses.
*Offered every 2 years. 3 credits.*

## UR 305 Group Conflict in the Urban Community

*Prerequisite: UR 101*

Study of conflict and its resolution in contemporary urban settings. Personal, small group, and societal strategies for conflict resolution will be explored.
*Offered every 2 years. 3 credits.*

## UR 306 Interviewing and Counseling Techniques

*Prerequisite: Consent of instructor*

Investigation of skills and process of interviewing and counseling with emphasis upon theory and practice, participant exercises, and development of helping skills and effective counseling relationships.
*Offered every 3 years. 3 credits.*

## UR 310 Power, Politics, and Decision-Making in Urban Communities

*Prerequisite: UR 101*

Exploration from multi-disciplinary approach of social power and its relation to decision-making in urban communities. Emphasis on theories of power, understanding research methodologies, and policy implications.
*Offered every 3 years. 3 credits.*

## UR 311 Community Politics and Policies

*Prerequisite: UR 101*

Political behavior and perceptions in cities and towns from a multidisciplinary perspective with emphasis on how policy is initiated, developed and implemented in various governmental forms.
*Offered every 3 years. 3 credits.*

## UR 320 Human Needs and Social Policy

Analysis of human needs as they change over a life span; why needs go unmet, and the role of social policy in meeting needs.
*Offered every year. 3 credits.*

## UR 321 Social Work in the Urban Society

*Prerequisite: UR 101*

Overview of approaches used by social work professionals in assessing and meeting needs, including casework, community organization and planning.
*Offered every 2 years. 3 credits.*

## UR 325 Social Casework in the Urban Setting

*Prerequisite: UR 101*

Introduction to various social work approaches—client-centered, task-centered, Gestalt, Carhuff and reality therapy; role playing and counseling simulations utilized.
*Offered every 2 years. 3 credits.*

## UR 330 Justice in the Urban Society

*Prerequisite: UR 101*

Theoretical perspectives on the mission of the criminal justice system and the daily operation of its sub- components.
*Offered every 3 years. 3 credits.*

## UR 331 Crime and the City

*Prerequisite: UR 101*

Investigation of crime in contemporary urban society and the social, legal, economic, and cultural strategies for dealing with crime and deviance.
*Offered every 2 years. 3 credits.*

## UR 340 Urban Housing Dilemma

*Prerequisite: UR 101*

Analysis of the factors that shape the nature, location, and supply of urban housing with special focus on federal, state and local policies.
*Offered every 3 years. 3 credits.*

### UR 341 Urban Health and Social Policy

*Prerequisite: UR 101*

Analysis of urban health care, with special emphasis on the role of social policy in ensuring health care for all, particularly children and elders.
*Offered every 2 years. 3 credits.*

### UR 344 A Society for All Ages: Intergenerational Community Service

Exploration of the necessary role of community service in civic life with emphasis on harnessing the power of intergenerational programs to address social concerns.
*Offered every year. 3 credits.*

### UR 350 Urban Youth in American Society

*Prerequisite: UR 101*

Role and problems of youth in urban societies viewed from a variety of social science perspectives with utilization of contemporary music and literature.
*Offered every 2 years. 3 credits.*

### UR 351 Public Policy and Youth Services

*Prerequisite: UR 101*

Role of theory, attitudes, and public opinion in the formation of policies concerning delinquency with exploration of current practices and innovative strategies.
*Offered every 2 years. 3 credits.*

### UR 352 Policy Planning for an Aging Society

*Prerequisite: Consent of instructor*

Analysis of current social policies in regard to elders and exploration of ways in which policies need to be altered to meet growing elder needs.
*Offered every 3 years. 3 credits.*

### UR 360 Environmental Systems and Public Policy

*Prerequisite: UR 101*

Examination of urban ecosystems, focusing on land uses designed to effectively utilize water, open space and other natural resources.
*Offered every 2 years. 3 credits.*

### UR 361 Public Policy and Environmental Issues

*Prerequisite: UR 101*

Investigation of the factors that determine the formation of public policy on the environment with consideration of the roles played by state and federal regulatory agencies.
*Offered every 2 years. 3 credits.*

### UR 370 Structure and Function of Urban Organizations

*Prerequisite UR 101*

Advanced leadership seminar for students interested in pursuing management careers in public and non-profit organizations.

*Offered every 3 years*

### UR 380 Public Policy and Cultural Diversity

*Prerequisite: UR 101*

This course will examine contemporary policy issues and problems deriving from cultural diversity. These will include areas such as immigration, population, demographics, affirmative action, public assistance, integration, separatism, political correctness, gender equity, and the role of organized religion in contemporary politics.
*Offered every 2 years. 3 credits.*

### UR 401 Research Seminar in Urban Studies

*Prerequisite: UR 101*

Research skills for urban-based projects including techniques in gathering, analyzing, and reporting data and various forms of field research.
*Offered every year. 3 credits.*

### UR 410 Assigned Research in Urban Affairs

*Prerequisite: UR 101*

Individual or small group directed research into selected problems and issues in urban affairs.
*Offered every 3 years. 3 credits.*

### UR 411 Assigned Readings in Urban Affairs

*Prerequisite: UR 101*

Directed readings for students interested in special topics related to their academic program of study.
*Offered every 2 years. 3 credits.*

### UR 421 Selected Topics in Urban Studies

*Prerequisite: UR 101*

In-depth examination of topical issues challenging the intellectual and creative interests of advanced students in urban studies.
*Offered every year. 3 credits.*

### UR 422 Selected Topics in Gerontology

*Prerequisite: Consent of instructor*

In-depth examination of topical issues in gerontology which afford the advanced student the opportunity to pursue gerontological research.
*Offered every 2 years. 3 credits.*

### UR 430 Seminar in Current Urban Problems

*Prerequisite: UR 101*

Individual and group investigation and research of selected and current urban problems.
*Offered every 2 years. 3 credits.*

### UR 432 Demographic Research Seminar

*Prerequisite: UR 101*

Small group or individual research using various sources in gathering, interpreting, reporting and projecting policy implications of demographic data.
*Offered every 3 years. 3 credits.*

### UR 440 Practicum in Urban Studies

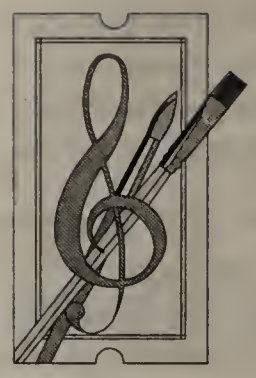
*Prerequisite: UR 101*

Directed experiential study for advanced students.
*Offered every year. Variable credit.*

### UR 450 Internship in Urban Studies

*Prerequisites: Completion of 21 credits in Urban Studies*

Supervised and intensive semester-long experience in community agencies.
*Offered every year. 3-12 credits.*



# Visual and Performing Arts

## Department of Visual and Performing Arts

### Faculty

Michael C. Hachey, Professor (1993), Department Chair
B.F.A., M.F.A., Massachusetts College of Art

John H. Hood, Assistant Professor (2004)
B.F.A., Arizona State University; M.F.A., University of Minnesota

Kyle D. Martin, Assistant Professor (1998)
B.M., Hardin-Simmons University; M.M., D.M.A., Eastman School of Music

Michele D. Merle, Professor (1971)
A.B., M.A., Columbia University; M.F.A., Instituto Allende

Christie B. Nigro, Professor (1989)
B.M., Syracuse University; M.M., Yale University; Ph.D., University of Massachusetts

Robert Sahagian, Professor (1968)
B.M., New England Conservatory of Music; M.M., Ph.D., Michigan State University

Amaryllis Siniossoglou, Assistant Professor (2005)
M.F.A., University of Massachusetts, Amherst; Ecole Nationale Superieure Des Beaux-Arts, Paris, France; Diplome Superieur d' Art Plastique; School of Art, Athens, Greece; Drawing and Painting School, Certificate

Patrick Tangredi, Assistant Professor (2005)
M.F.A., Tulane University; B.A., Massachusetts College of Liberal Arts

Catherine Wilcox-Titus, Assistant Professor (2004)
B.A., University of Toronto; M.S., Simmonds College; M.A., Ph.D., Boston University

## Visual and Performing Arts Courses

Courses carrying the VP prefix are interdisciplinary. They offer a team-taught approach to arts appreciation, criticism, and creation. Emphasis is placed on examining both the commonalities and differences among the arts.

All courses offered by this discipline can be used to fulfill the Fine Arts distribution requirement.

## VP 100 The Arts: Contrasts and Connections

An examination of elements, forms, and concepts in the visual and performing arts. An interdisciplinary, team-taught approach to arts appreciation, criticism, and creation, utilizing a variety of cultural resources.
*Offered every year. 3 credits.*

## VP 200 The Arts in Society

*Prerequisite: VP 100*

An interdisciplinary, team-taught survey of art, music, and theatre history from the ancient world to the present. The course provides chronological and geographical frameworks on which to construct an understanding of the historical interrelationships among the arts.
*Offered every year. 3 credits.*

## VP 300 Integrated Arts: Studies and Actions

*Prerequisite: VP 200*

This team-taught , one-semester course aims at the dissolution of the boundaries between individual arts through study and experimentation in a variety of integrated arts experiences. Students actively participate in generating an event (or a series of events) incorporating the visual arts, music, and theatre.
*Offered every year. 6 credits.*

## VP 400 Independent Study in the Arts

*Prerequisite: VP 100*

An opportunity for advanced students to examine topics not ordinarily covered in other arts courses.
*Offered every year. 1-6 credits.*

## VP 410 Special Topics

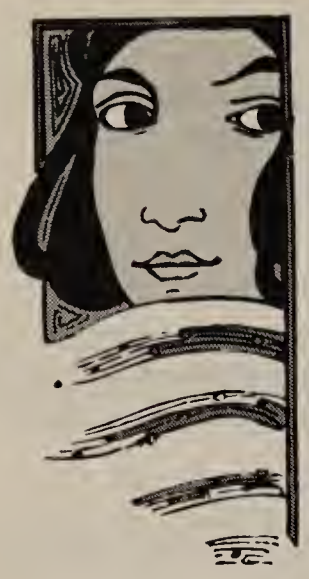
*Prerequisite: Two VP courses*

Study of topics not otherwise covered in the curriculum.
*Offered every 3 years. 3 credits.*

## VP 435 Internship in the Arts

*Prerequisite: Two relevant arts courses*

An opportunity for advanced students to gain practical experience in a working atmosphere in cooperation with galleries, museums, theatres, presenting organizations or other arts institutions.
*Offered every year. 3-12 credits*



# Women's Studies

## Women's Studies Concentration

## Faculty

Lisa Krissoff Boehm, Assistant Professor of Urban Studies
B.A., Northwestern University; M.A., University of Chicago; Ph.D., Indiana University

Lynn Bloomberg, Associate Professor of Health Sciences
B.A., University of Hawaii; M.Ed., University of Texas; Ph.D., University of California at Berkeley

Nancy Brewer, Assistant Professor of Health Sciences
B.S., University of Pittsburgh; M.Ed., Ph.D., Pennsylvania State University

Sibyl Brownlee, Vice President, Student Development
B.A., California State College, Los Angeles; M.A., California State University, Los Angeles; Ph.D., University of Massachusetts, Amherst

Alta Carroll, Associate Professor of Communications
B.A., Texas A&M University; M.S., Columbia University; Ph.D., Purdue University

Bruce S. Cohen, Associate Professor of History
A.B., M.A., Rutgers University

Steven Corey, Associate Professor of Urban Studies
B.A., M.A., University of Rhode Island; Ph.D., New York University

Lori J. Dawson, Associate Professor of Psychology, Associate Director of Women's Studies
B.A., Suffolk University; M.A., Ph.D., State University of New York at Albany

Corey Dolgon, Associate Professor of Sociology
B.S., Boston University; M.A., Baylor University; Ph.D., University of Michigan

Guillermina Elissondo, Associate Professor of Spanish
M.A., Michigan State University; Ph.D., University of North Carolina at Greensboro

Anne Falke, Associate Professor of Chemistry
B.A., University of Rhode Island; Ph.D., University of New Hampshire

James Foley, Assistant Professor of English
B.A. Tufts University; M.A., Rutgers University; M.F.A.,
Ph.D., University of Massachusetts

Julie Frechette, Associate Professor of Communications, Director of Women's Studies
B.A., University of New Hampshire; M.S., Ph.D., University of Massachusetts

Suzanne Gainer, Assistant Professor of Communications
B.A., Saint Vincent College; M.F.A., Rhode Island School of Design

Ruth Haber, Associate Professor of English
B.A., M.A., Ph.D., University of California at Santa Barbara

Judith Jeon-Chapman, Associate Professor of Languages and Literature
B.A., College of Saint Benedict; M.A., Ph.D. University of Washington, Seattle

Margaret Kerr, Assistant Professor of Chemistry
B.S., University of Maine; Ph.D. Wesleyan University

Robyn C. Leo, Assistant Professor of Nursing
B.S.N., Worcester State College; R.N., Framingham Union School;
M.S., University of Connecticut

Penny Martin, Assistant Professor
B.S., Weber State College, Utah; M.A., Humboldt State University;
Ph.D., University of Miami

Christie B. Nigro, Professor of Visual and Performing Arts
B.M., Syracuse University; M.M., Yale University;
Ph.D. University of Massachusetts at Amherst

Maureen E. Power, Professor of Urban Studies
A.B., Emmanuel College; M.S.W., Ph.D., Brandeis University

MaryLynn D. Saul, Associate Professor of English
B.S., M.A., Ph.D., Ohio State University

Helena V. Semerjian, Associate Professor
B.S., Ed.M., Fitchburg State College; Ed.M., Boston University

Daniel C. Shartin, Associate Professor
B.A., M.A., Ph.D., University of California at Los Angeles

C. Keshini Soysa, Assistant Professor
B.A., Indraprastha College, University of Delhi; A. B., Mount Holyoke College;
M.A., Ph.D., Clark University

Henry C. Theriault, Associate Professor of Philosophy
B.A., Princeton University; Ph.D., University of Massachusetts

Kristin B. Waters, Professor of Philosophy
A.B., Bard College; M.A., Ph.D., University of Connecticut

Karen Woods Weierman, Assistant Professor of English
B.A., Georgetown University; Ph.D., University of Minnesota

Sharon Yang, Associate Professor of English
B.A., UMass Lowell; M.A., Clark University; Ph.D., University of Connecticut

Barbara Zang, Associate Professor, Associate Director of Women's Studies
B.S., University of Missouri; M.A., University of Toledo; M.A., University of Missouri;
Ph.D., Indiana University

Women's Studies is an interdisciplinary, academic course of study which lies at the intersection of the traditional academic disciplines such as literature, history, and philosophy in the humanities, psychology and sociology in the social sciences, as well as biology and geography in the natural sciences. Women's Studies has also found a prominent place in newer and interdisciplinary areas such as education, communications, urban studies and health sciences. Wherever gender issues are germane to a discipline, Women's Studies can be found, in part as a corrective to the centuries-long tendency of the traditional disciplines to focus mainly or exclusively on men and in part to bring new models of understanding to all areas of study.

The undergraduate concentration in Women's Studies brings together courses that focus on women and provide a critical analysis of gender and the related categories of class, race and other dimensions of social power. Gaining knowledge about women and men and understanding knowledge generated by Women's Studies helps students to move through our complex contemporary world.

**Requirements for a Concentration in Women's Studies: 15 credits**

The Women's Studies concentration is interdisciplinary; it uses a broad variety of academic disciplines in achieving its goals. Students are required to take a total of five Women's Studies courses from at least two disciplines. It is recommended that students take an introductory course such as WO/UR 103: Introduction to Women's Studies or WO/PH 150: Women in Western Ideas. Students are also encouraged to engage in some sort of specialized experience such as an independent study, a directed readings course leading to a major paper, a creative project or an internship. Students in Women's Studies may use courses to simultaneously count for a concentration in Women's Studies and other college requirements.

# Women's Studies Courses

***Courses marked with an asterisk (*) are approved for the concentation only during those semesters when they are listed under Women's Studies in the Course Schedule.**

### WO/CM 213 Gender Images in the Media

This course will examine how difference is socially constructed along gender lines, and will explore intersections of gender, identity and power.
*Offered every 2 years. 3 credits.*

### *WO/CM 350 Intercultural Communication

Introductory communication theory and practice across cultural groups defined by race, ethnicity, gender, religion, age, nationality, geography, politics, and economics.
*Offered every 2 years. 3 credits.*

### *WO/ED 330 Elementary Social Studies and Multiculturalism (only for Elementary Education Majors)

*Prerequisite: must be admitted to stage 2 in the elementary education program.*

Goals, curriculum, skills, teaching strategies in educating culturally diverse populations in a global context.
*Offered every year. 3 credits.*

### WO/EN 132 World Literature: Asian, African, and Latin American Literature

Representative poems, stories, plays, both ancient and modern, from Africa, Asia, Latin America.
*Offered every year. 3 credits.*

### WO/EN 172 Women and Literature

Explores basic issues and problems in literature by and about women.
*Offered every 2 years. 3 credits.*

### WO/EN 174 Women Poets

A close reading and analysis of poetry written by women from a historical as well as contemporary feminist perspective.
*Offered every 3 years. 3 credits.*

### WO/EN 345 Women in American Literature

The American woman as she is found in fiction, non-fiction, and poetry.
*Offered every 3 years. 3 credits.*

### *WO/FR 341 Introduction to French Literature

Major periods and genres of French literature: for majors and minors. Conducted in French.
*Offered every 3 years. 3 credits.*

### WO/HC 234 Multiculturalism and Health

Examination of diverse ethnic/racial and cultural beliefs and practices affecting health and illness.
*Offered every 2 years. 3 credits.*

### WO/HE 210 Women's Health Issues

Interactive processes of politics, power, and media influence on research and public health policies; current health issues are addressed.
*Offered every year. 3 credits.*

### *WO/HI 209 Afro-American History

The role of blacks in American society from the seventeenth century to the present, emphasizing the institution of slavery.
*Offered every 3 years. 3 credits.*

### *WO/HI 216 U. S. Economic History

An introduction to United States economic development; particular attention will be paid to industrialization and the labor force
*Offered every year. 3 credits.*

### *WO/HI 232 European Intellectual History II

The main theoretical frameworks, philosophic, psychological, and scientific, of the nineteenth and twentieth centuries.
*Offered every 3 years. 3 credits.*

### *WO/HI 249 U. S. Labor History I

The relationship between workers, their employers, and the surrounding community between 1815 and World War II.
*Offered every 2 years. 3 credits.*

### WO/HI 270 Writings on Feminism in Historical Perspective

This course examines the writings of Euro-American male and female feminists who promoted the interests of women during the 16th - 19th centuries
*Offered every 2 years. 3 credits.*

### WO/HI 274 Sex, Marriage and the Family in Historical Perspective

This course will undertake a study of courtship, marriage and family life-cycle patterns in England and America during the 19th century.
*Offered every 2 years. 3 credits.*

### WO/HI 333 Women in Latin America

Examines the roles of women in diverse societies including Mexico, Brazil, and the Caribbean nations. Emphasis on the modern period.
*Offered every other year. 3 credits.*

### WO/HI 350 Native American Women

Examines Indian women from the time of European contact to the modern era . Emphasizes culture, community, and arenas of power.
*Offered every other year. 3 credits*

### *WO/HI 353 The Age of Reform: 1877-1920

An analysis of the transformation of America, including the reform response to the Gilded Age's industrialization, urbanization, and immigration patterns.
*Offered every 2 years. 3 credits.*

### WO/HI 372 The Evolution of Women's Rights

This course analyzes the evolution of Women's Rights with emphasis on its role in the twentieth century's International Law of Human Rights
*Offered every 2 years. 3 credits.*

### WO/MU 231 Women in Music

A survey of the role of women in music, particularly the great women composers from Medieval to contemporary times.
*Category1. 3 credits.*

### *WO/NU 310 Nursing Science I

Focus is on the study of the normal functioning patterns of the well individual and childbearing family.
*Offered Fall semester every year. 8 credits.*

### WO/PH 150 Women in Western Ideas

Investigates the concept of woman from ancient Greece to the present.
*Offered every 2 years. 3 credits.*

### *WO/PH 240 Political Theory

Investigates concepts including political power, equality, revolution, liberties, slavery, socialism and liberalism, patriarchal power, race and gender
*Offered every 3 years. 3 credits.*

### *WO/PH 250 Genocide and Human Rights

This course treats the ethical, political, and other dimensions of systematic mass violence through case studies and general theoretical analysis.
*Offered every 3 years. 3 credits.*

### WO/PH 260 Global Feminism

Investigates the theoretical underpinnings of women's movements for equal rights around the globe
*Offered every 2 years. 3 credits.*

### WO/PS 255 Psychological Foundations of Diversity

Explores the gender, racial/ethnic, multiple-group membership, cultural, social class, religious, disability and sexual orientation facets of diversity.
*Offered every 3 years. 3 credits.*

### WO/PS 260 Psychology of Human Sexuality

Sexuality as a foundation of personality. The wide range of human sexuality is explored: sexual development, roles, attitudes and behaviors
*Offered every 2 years. 3 credits.*

### WO/PS 263 Psychology of Women

Women's psychological development throughout the lifespan will be examined, including female development, achievement, stereotyping, stress, violence and psychological disorders.
*Offered every 2 years. 3 credits.*

### WO/PS 315 Physical and Sexual Abuse

Etiology, characteristics, consequences, treatment, and prevention of various forms of physical, sexual, and emotional abuse in children, adolescents, and adults.
*Offered every 2 years. 3 credits.*

### WO/SO 130 Race, Ethnicity and Gender

An introduction to dominant-minority group relations through the investigation of the patterns and dynamics of differentiation, inequality and discrimination.
*Offered every 3 years. 3 credits.*

### *WO/SO 205 Issues in American Society

Identification and analysis of current social issues facing contemporary American society, and critique of policies and programs designed to resolve these issues.
*Offered every 2 years. 3 credits.*

### *WO/SO 240 Sociology of Education

Study of modern educational systems, emphasizing the social, political and economic factors that influence its organization and its functions.
*Offered every 2 years. 3 credits.*

### *WO/SO 300 Social Change

A study of the conditions, patterns, and consequences of social transformations with emphasis on institutional and individual patterns of adjustments and adaptation.
*Offered every 3 years. 3 credits.*

### *WO/SO 350 Social Stratification

Investigation of the recurrent patterns of social differentiation, social ranking, and the unequal distribution of rewards.
*Offered every 2 years. 3 credits.*

### WO/UR 103 Introduction to Women's Studies

This course uses a variety of academic disciplines to study the situation of women around the world.
*Offered every year. 3 credits.*

### WO/UR 202 Aging in Metropolitan Society

An introduction to gerontology, stressing the social, economic and political aspects of aging in the urban environment.
*Offered every 2 years. 3 credits.*

### WO/UR 216 Women and Aging in the Urban Environment

Investigation of the aging process for women in urban society, focusing on their great longevity, lower income status, and major caregiving role.
*Offered every 2 years. 3 credits.*

### WO/UR 290 Gender and the City

Exploration of ways in which gender, both male and female, structures responses of individuals to urban life and urban spaces.
*Offered every 2 years. 3 credits.*

### *WO/UR 360 Environmental Systems and Public Policy

Examination of urban ecosystems, focusing on land uses designed to effectively utilize water, open space and other natural resources.
*Offered every 2 years. 3 credits.*

### WO/UR 380 Diversity and Multiculturalism

This course will examine contemporary policy issues and problems deriving from cultural diversity. These will include areas such as immigration, population, demographics, affirmative action, public assistance, integration, separatism, political correctness, gender equity, and the role of organized religion in contemporary politics.
*Offered every 2 years. 3 credits.*

# Professors Emeriti

Helen G. Agbay, Professor/Spanish 1974
Francisco Alcala, Professor/Spanish 1996
Dr. M. June Allard, Professor/Psychology 2005
Dr. Eleanor Ashton, Professor/Psychology 2004
Charles D. Avedikian, Professor/Mathematics and Computer Science 1990
James R. Ayer, Professor/Languages and Literature 2000
Vera M. (Dowden) Baldwin, Professor/Education 1974
Nora M. Barraford, Professor/English 1984
Dr. Elizabeth T. Binstock, Professor/Education 2002
Edwin A. Boger, Professor/Biology 2000
Arnold J. Bornfriend, Professor/Business Administration and Economics 2000
Dr. Anne M. Brown, Professor/Nursing 2002
Josefina S. Bunuan, Professor/Education 1999
Michael A. Burke, Professor/Health Science 1998
William Byers, Associate Professor/Communications 2002
Dr. Jean A. Campaniello, Professor/Psychology 2002
Doris M. Carter, Professor/Visual and Performing Arts 1998
Jacqueline G. Casale, Professor/Art 1991
Jennie M. Celona, Professor/French 1996
Louis J. Celona, Professor/Music 1992
Harold L. Chapman, Professor/Physics 1988
Carol Chauvin-Fortier, Professor/Biology 1993
Yvonne Chen, Professor/Health Sciences 2001
Kee Il Choi, Professor/Business Administration and Economics 1992
Anna B. Cohen, Professor/Communication Disorders 1999
Phyllis A. Crowley, Professor/English 1996
Dr. Joyce Cummings, Professor/Psychology 2002
Philip S. Dalton, Professor/History and Political Science 2000
Aldona Daly-Boxshus, Professor/Psychology 1995
Paul Davis, Professor/Media, Arts and Philosophy 1992
Vincent R. DeBenedictis, Professor/Foreign Languages 1990
Barbara A. Desrosiers, Professor/Psychology 1998
Daniel E. Dick, Professor/Natural and Earth Sciences 1989
John R. Dowling, Professor/Education 1998
Helen B. Duquette, Professor/Physical Education 1992
Francis T. Dyson, Professor/Physical Education 1993

Alfred F. Eddy, Professor/English 1990
Robert P. Ellis, Professor/English 1995
Dr. Leonard F. Farrey, Professor/Business Administration and Economics 2002
Dr. Vivian C. Fox, Professor/History and Political Science 2004
Florence Fraumeni, Professor/Education 1985
Linda Fuller, Professor/Communications 2000
Yvonne Gallant-Martel, Professor/French 1977
Dr. Geoffrey J. Garrett, Professor/Physical and Earth Science 2004
James E. Girouard, Professor/Physical Education 1985
Bernard Goldsmith, Professor/History and Political Science 1995
Merrill H. Goldwyn, Professor/Languages and Literature 1998
Dr. Linda S. Gordon, Professor/Languages and Literature 2003
Loren N. Gould, Professor/Natural and Earth Sciences 1993
Dr. Terry E. Graham, Professor/Biology 2003
Emmet J. Grandone, Professor/Languages and Literature 1998
Ruth E. Greenslit, Professor/Library 1989
Sandra A. Hall, Associate Professor/Nursing 2002
Nancy E. Harris, Professor/Education 1999
Dr. Robert J. Hartwig, Professor/Business Administration and Economics 2004
Mary T. Hayes, Professor/Education 1974
Bruce Henry, Professor/Mathematics and Computer Science 2001
Mary Ellen Herx, Professor/English 1989
Nancy Hicks, Associate Professor/Physical and Earth Science 1987
Dr. W. Mack Hill, Professor/Mathematics 2004
David W. Hilton, Professor/Computer Science 1999
Paul A. Holle, Professor/Biology 1989
Ronald W. Hurd, Associate Professor/Physical and Earth Science 2004
Marion J. Jennings, Professor/Education 1978
Alfred C. Johnson, Associate Professor/Mathematics 2004
Jean E. Johnson, Professor/English 1990
Nancy A. Johnson, Professor/Education 1995
Dr. Donna M. Joss, Professor/Occupational Therapy 2004
Dr. Joan K. Juralewicz, Professor/Education 2002
Richard S. Juralewicz, Professor/Business Administration and Economics 2001
Robert G. Kane, Professor/History 1999
George T. Kelley, Professor/Economics 1997
Robert F. Kelley, Professor/Physics 1988
Baheej B. Khleif, Professor/Sociology 1994
Margaret A. Kittredge, Professor/Spanish 1995
Sandra Kocher, Professor/Art 1992
Dr. Ellen V. Kosmer, Professor/Visual and Performing Arts 2004
Jerome L. Langer, Professor/Business Administration 1982
Edward H. Leonard, Professor/Physics 1984
Robert E. Lingner, Associate Professor/Physical and Earth Sciences 2005
Mary Lou Lovering, Professor/Nursing 2000
Carol E. Lysaght, Professor/Communication Disorders 1996

*Professors Emeriti*

Dr. Gordon S. Matheson, Professor/Psychology 2004
Gary W. McEachern, Professor/Business Administration and Economics 1998
Bernard L. McGough, Professor/Media 1994
Robert F. McGraw, Professor/History 1991
John F. McLaughlin, Professor/Communication Disorders 1996
A. Gibbs Mitchell, Professor/History 1996
John P. Mockler, Professor/Physical Education 1992
Michael E. Mulcahy, Associate Professor/Mathematics 2005
John M. Nash, Professor/Psychology 1993
Francis J. O'Connor, Professor/Spanish 1980
Richard A. O'Connor, Professor/Psychology 1994
Dr. Virginia Ogozalek, Professor/Computer Science 2003
Paul F. O'Neil, Professor/Education 1997
Dr. Chad C. Osborne, Professor/Education 2002
Dr. Ruth Ostenson, Assistant Professor/Psychology 2002
Robert F. Perry, Professor/Geography 1987
Vincent Piccolo, Professor/Media 1988
Frank C. Pizziferri, Professor/Sociology 1995
Vincent E. Powers, Professor/Urban Studies 2000
Catherine I. Quint, Professor/Education 1985
Dr. David Quist, Professor/Education 2003
Donald A. Read, Professor/Health Sciences 2001
Dr. Robert Redding, Professor/Mathematics 2004
Jeffrey L. Roberts, Professor/Languages and Literature 2001
Thomas L. Roberts, Professor/Biology 1988
Evelyn Robinson, Professor/Mathematics 1978
Bruce D. Russell, Associate Professor/Biology 2003
Dion Schaff, Professor/Philosophy 1993
Helen G. Shaughnessy, Professor/Education 1986
Dr. Ann Marie Shea, Professor/Visual and Performing Arts 2005
Katherine M. Shea, Professor/Foreign Languages 1991
William L. Sullivan, Professor/English 1983
G. Flint Taylor, Professor/Psychology 1985
Robert W. Thompson, Associate Professor/Physical and Earth Sciences 2005
Anthony W. Thurston, Professor/Biology 1983
Donald F. Traub, Professor/Philosophy 1998
F. Stephen Trimby, Associate Professor/Business Administration and Economics 2004
Richard S. Tyrell, Professor/English 1994
LLoyd P. Wheaton, Associate Professor/Chemistry, 2002
Dr. Gary G. Young, Associate Professor/Business Administration and Economics 2002
Cheng Yuan, Professor/History and Political Science 2000
Manuel Zax, Professor/Mathematics 1992
Faith T. Zeadey, Assistant Professor/Sociology 2003
Matthew Zelman, Associate Professor/Sociology 2004
Estelle C. Zoll-Resnik, Professor/Chemistry 1997

# Officials of the College

## Board of Higher Education

Stephen P. Tocco, Chair

Aaron D. Spencer, Vice Chair

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Gregory O. Hunter '84

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# Presidents of Worcester State College

Elias Harlow Russell

1874-1909

Francis Ransom Lane

1909-1912

William B. Aspinwall

1912-1939

Clinton Carpenter

1940-1946

Eugene A. Sullivan

1947-1970

Robert E. Leestamper

1970-1975

Joseph J. Orze

1975-1982

Philip D. Vairo

1982-1991

Kalyan K. Ghosh

1992-2002

Janelle C. Ashley

2002-

# Administrative Offices

## Office of the President

Dr. Janelle C. Ashley, President of the College (2002)
B.B.A., M.A., Stephen F. Austin State University; Ph.D., University of North Texas

Deborah C. Quinn, Staff Assistant, President's Office (1997)

Judith A. St. Amand, Executive Assistant to the President (1970)
B.S., Worcester State College

## Academic Affairs

Elizabeth Axelson, Associate Director of Admissions (1970)
B.S., M.S., Worcester State College

Marcus S. Babaoye, Assistant Vice President for Academic Affairs for Assessment and Planning (2003)
B.S., M.P.A., Southern University, Baton Rouge; Ph.D., Louisiana State University

Cynthia J. Blair, Assistant Director, Student Records and Registrar (1996)
B.S., Worcester State College

Nicole M. Brown, Assistant Dean, Graduate and Continuing Education (1981)
B.A., M.Ed., Worcester State College

David A. Caruso, Vice President for Academic Affairs (2001)
B.A., M.A., Sonoma State University; Ph.D., Cornell University

Laura Caswell, Staff Assistant, Data Administrator (1998)
A.S., Quinsigamond Community College; B.S., Worcester State College

Julie A. Chaffee, Director, Student Records and Registrar (1997)
B.A., St. Anselm College

Steve Chao, Director, International Programs (2004)
B.A., Columbia College; M.B.A., Lindenwood University; Ed.D., St. Louis University

Lee A. Cordaro, Staff Assistant/Clinic Supervisor, Communication Sciences and Disorders (2005)
B.S., M.S., Worcester State College

Nancy Cruz de Piñeiro, Staff Assistant/Coordinator of the Academic Tutoring Center within Academic Affairs (2004)
B.S., M.A., Worcester State College

Joyce A. Danelius, Staff Associate/Help Desk Service Coordinator, Network Systems Support (2000)

Huy Dao, Staff Assistant, Computer Systems Coordinator (1998)
B.S., Worcester State College

Maria M. Del Rio, Executive Director, Latino Education Institute (2002)
B.A., M.Ed., University of Puerto Rico; Ph.D., University of Massachusetts, Amherst

Kirshner Donis, Assistant Director of Admissions (2005)
B.A., Clark University

Vincent P. Donohue, Staff Assistant, Administrative Services (1983)
B.B.A., M.B.A., University of Massachusetts

Jennifer English, Staff Assistant, Financial Aid (2004)
B.A., Mount Holyoke College

Dorothy A. Escribano, Associate Vice President for Academic Affairs and Faculty Development (1996)
B.A., Marist College; M.A., SUNY Stony Brook; M.A., University of Rhode Island; Ph.D., Brown University

Frances Ganek, Staff Assistant, Education (1999)
B.S., Westfield State College; M.Ed., Worcester State College

Ken A. Garello, Assistant Director, Academic and End User Services (2001)
B.S., Worcester State College

Debra W. Gaston, Staff Associate/Counselor, Academic/Personal Counseling (1999)
B.A., St. Olaf College; M.A., Ph.D., University of Connecticut

Susan Gately, Associate Dean, Graduate and Continuing Education (2004)
B.A., North Adams College; M.Ed., Worcester State College; C.A.G.S., University of Massachusetts/Amherst

Deborah L. Gonzalez, Staff Assistant/Coordinator of the Family Resource Center, Latino Education Institute (2004)
B.S., M.A., Ph.D., University of Massachusetts, Amherst

Nelson E. Guaman, Staff Assistant/Lab Instructor, Computer Science (2002)
B.S., M.Ed., Atalntic Union College

Jennifer E. Guzman-Gayflor, Staff Assistant/Outreach Coordinator, Latino Education Institute (2003)
B.A., Worcester State College

Janice C. Hamel, Staff Assistant/Programmer Analyst (1997)
A.A., Quinsigamond Community College

Kathleen M. Keegan, Staff Assistant/Counselor, Financial Aid (1998)
B.A., Worcester State College

Laurel M. Kilbeck, Director, Research and Evaluation Projects (1997)
B.S., M.S., Case Institute of Technology, M.S.I.S., Cleveland State University

Rayanne D. Lapierre, Associate Director, Admissions (2000)
B.A., M.Ed., University of Massachusetts, Lowell

Colleen E. Laviolette, Assistant Director of Administrative Services (1983)
B.S., Worcester State College

Elisa M. Lopez-Dobski, Staff Assistant/Academic Program Coordinator, Latino Education Institute (2005)
B.A., Boston College, M.A., Columbia University-Teacher College

Ruth E. Margulies, Staff Assistant/Clinic Supervisor, Communication Sciences and Disorders (2005)
B.S., Boston University; M.S., Emerson College

Jon McCarter, Staff Assistant/Information Design Coordinator, Information Technologies (2002)
B.A., Worcester State College

Benjamin T. McElroy, Assistant Director, Admissions (2001)
B.A., Worcester State College

Jayne A. McGinn, Director, Financial Aid (1998)
B.A., Worcester State College

Daniel R. Nicholes, Director of the Center for Business and Industry, Graduate and Continuing Education (2004)
D.A., P.H.R., Carnegie-Mellon University

Abhimanyu B. Pandey, Staff Assistant/Server Support Specialist/Information Technologies (2004)
M.S.E.C.E., University of Massachusetts, Amherst

Jorge J. Poueriet Rolffot, Staff Assistant/Student Support Services, Information Technologies (2004)
B.A., Universidad Dominicana O&M

Nancy Ramsdell, Staff Associate/Technology Development Manager, Information Technology (2005)

Jack J. Reardon, Staff Associate/Network Manager, Information Technologies (2003)
B.S., Bridgewater State College

Elsa M. Rivera, Staff Assistant/School College Liaison, Latino Education Institute (2003)
B.S., Worcester State College

David J. St. Martin, Staff Assistant/Web Site Manager (1999)
B.S., Worcester State College

Annmarie D. Samar, Assistant Vice President for Academic Affairs/Faculty Administrative Fellow (2005)
R.N., Quincy City Hospital; B.S., Worcester State College; M.S., University of Rhode Island; Ph.D., University of Massachusetts

Martha M. Scheffer, Staff Associate/Certification Officer (1998)
B.S., Emerson College; M.S., Lesley College

Margaret F. Shagro, Staff Assistant/Counselor, Financial Aid (1997)
B.A., St. Michael's College

Roberta H. Sibulkin, Staff Associate, Technical Training and Support (1996)
B.A.Ed., University of Florida

Gerald E. Sorge Jr., Director of Academic Affairs Administrative Support (1997)
B.S., SUNY Fredonia; M.S., University of New Hampshire

Pedro Toro, Staff Assistant/Student Support Services, Information Technologies (2004)
B.A., Worcester State College

Robin Vario, Staff Assistant, Financial Aid (2001)
B.A., Worcester State College

Ann T. Veneziano, Staff Associate/Clinic Director, Communication Sciences and Disorders (1988)
B.A., Boston College; M.S., Syracuse University

Donald W. Vescio, Associate Vice President for Academic Affairs for Information Technologies (1997)
B.A., State University of New York College at Oswego; M.A., University of New Hampshire; M.A., Ph.D., University of Rochester

Andrea L. Wamboldt, Director of the Academic Success Center (2000)
B.A., Worcester State College

William H. White, Dean, Graduate and Continuing Education (1998)
B.A., Nason College; M.Ed., University of New Hampshire; Ed.D., Vanderbilt University

Susan M. Wise, Staff Assistant/Database Coordinator/Research Analyst, Assessment and Planning (2004)
B.S., Worcester State College

Maribeth Wrobel, Staff Assistant/Admissions Counselor, Admissions (2003)
B.A., Worcester State College

Zhao (Lucy) Zhang, Director of Institutional Research (2005)
B.A., Wuhan University, Wuhan, Hubei, China; M.B.A., Bowling Green State University

## Administration

Brian R. Dinsdale, Director, Publications and Printing Services (1982)
B.A., M.Ed., Worcester State College

Carol A. Faron, Staff Assistant, Human Resources (1997)

Don McCabe, Staff Assistant, Commercial Artist (1993)
Diploma, Vesper George School of Art

Russell E. Vickstrom, Director, Human Resources (1999)
B.S., Worcester State College; M.B.A., Anna Maria College; S.P.H.R.

## Diversity

Edna P. Spencer, Director of Diversity (1994)
A.B.A., Quinsigamond Community College; M.A.L.A., Clark University

## Facilities

Robert P. Daniels, Staff Associate/Health and Safety Officer, Facilities (2004)

Peter Fenuccio, Associate Director of Facilities (2004)
Worcester Technical Institute

Alan E. Jackson, Associate Director of Facilities/Scheduling & Special Events (1983)
A.B., Southeastern Massachusetts University; M.Ed., Worcester State College

Richard R. Korzec, Associate Director of Facilities—Maintenance (1995)

Melissa Moore, Staff Assistant/Operations Manager/Scheduling & Special Events (2005)
B.A., Worcester State College

Sandra Olson, Director of Facilities (2003)
B.S., Worcester Polytechnic Institute; M.B.A., Clark University

Alan Sabal, Staff Assistant/Supervisor of Trades (2004)

## Finance

Lynn E. Bromley, Staff Associate/Payroll and Benefits Manager (1992)
B.S., M.S., Worcester State College

Julie DiCarlo, Staff Associate/Student Accounts Manager (2004)
Associates Degree, Becker Junior College

James Driscoll, Staff Associate, Financial Analyst (2004)
B.S., Suffolk University; M.B.A., Nichols College

Kathleen Eichelroth, Vice President for Fiscal Affairs (1998)
B.A., University of Massachusetts – Dartmouth; CPA, Massachusetts

Melissa A. Martin, Staff Assistant/OneCard Administrative Coordinator (2005)
Associates Degree, Becker College; B.A., Worcester State College

Robin Quill, Associate Vice President for Fiscal Affairs/Controller (2005)
B.S., Business Administration, Worcester State College

Louise Storey, Director of Procurement/Business Manager/Accounts Payable (2005)
B.A., Anna Maria College; M.S., Lesley University

## Institutional Advancement

Thomas McNamara, Vice President for Institutional Advancement (1998)
B.A., Worcester State College

Camilla Caffrey, Director of Alumni Relations
B.A., College of the Holy Cross

Donald Cushing, Development Officer
M.A., Worcester State College

Marion Catacchio, Staff Associate/Coordinator of Financial Records (1997)
B.S., Worcester State College; M.S., Bentley College

Tara Freeman, Associate Director, Alumni Development (2005)
B.A., University of Massachusetts, Amherst

Donald Lightfoot, Director of Development (2005)
B.A., Washington and Jefferson College

Tathagata Raja Mukherjee, Staff Assistant/Database Manager and Coordinator of Prospect Research, Development Office (2005)
Bachelor of Technology in Mechanical Engineering, Indian Institute of Technology; Graduate Diploma in Engineering Management, Auckland University

Michael Wronski, Director of Foundation and Corporate Relations (2004)
B.A., Holy Cross College

## Library

Robin Benoit, Associate Librarian (2004)
B.A., Framingham State College; M.S., Simmons College

Betsey J. Brenneman, Senior Librarian (1977)
B.S., Kent State University; M.L.S., Syracuse University; M.A.T., Fitchburg State College

Krishna DasGupta, Senior Librarian (1969)
B.A., Asutosh College; M.A., Calcutta University; M.L.S., Simmons College

Donald Hochstetler, Director of the Library (1999)
B.A., M.A., M.L.S., Indiana University; Ph.D. Michigan State

Pamela R. McKay, Senior Librarian (1969)
B.A., Dickinson College; M.S.L.S., Case Western Reserve University; M.A., University of Massachusetts

Ruth A. Webber, Associate Librarian (1973)
B.A., University of Massachusetts; M.L.S., State University of New York, Albany

## Public Relations and Marketing

Rachel Faugno, Staff Assistant/Editor and Production Coordinator (2001)
B.S., Worcester State College; M.A., Clark University

Kaine Thompson, Director of Public Relations and Marketing (1997)
B.A., University of Oregon; M.A., California State University, Northridge

## Student Affairs

Sibyl Brownlee, Vice President, Student Affairs (2001)
B.A., California State College, Los Angeles; M.A., California State University, Los Angeles; Ph.D., University of Massachusetts, Amherst

Laura A. Brunelle, Director, Counseling Services (1989)
B.A., M.A., C.A.G.S., Assumption College

Susan E. Chapman, Director, Athletics (1988)
B.S., University of Massachusetts; M.Ed., Worcester State College

Kristie M. DeSanctis, Associate Director, Student Center/Student Activities (2001)
B.A., Framingham State College; M.Ed., Bridgewater State College

Sarah B. Forti, Staff Assistant/Commuter Services and Weekend Programming Coordinator, Student Activities (2004)
B.A., Western New England College; M.Ed., Springfield College

Julie Kazarian, Staff Associate/Coordinator of Judicial Affairs/Student Affairs (2000)
B.A., M.S., Worcester State College

Jessica Kirk, Staff Assistant, Head Athletic Trainer (2002)
B.A., M.Ed., Worcester State College

David Lindberg, Assistant Director, Athletics, (1994)
B.A., Worcester State College

Dennis L. Lindblom, Director, Disability Services (1982)
B.A., University of Massachusetts; M.A., C.A.G.S., Assumption College

James Lockwood, Staff Assistant, Athletic Services Manager Athletics/Wellness (2005)
B.S., Worcester State College

Jamica N. Love, Director, Residence Life and Housing (2004)
M.A., Northeastern University

Kevin C. MacLennan, Staff Assistant/Assistant Athletic Trainer (2003)
B.A., Westfield State College

Dianne E. Matos, Assistant Director, Career Services (2004)
M.A., St. Michael's College, Winooski, VT; M.Ed., Suffolk University, Boston, MA

Anna Matos-Mournighan, Staff Assistant/Residence Director/Property Manager (2004)
B.A., Douglass College-Rutgers University

John Meany, Staff Assistant/Sports Information Director, Athletics (2004)
B.A., Middlebury College

Daniel W. Morse, Staff Assistant/Captain, College Police (1994)

James Mournighan, Staff Assistant/Placement Coordinator (2005)
B.S., Bridgewater State College

Rosemary Naughton, Chief of College Police (2001)
B.A., Anna Maria College; M.Ed., CHES, Worcester State College

Kevin O'Connor, Staff Assistant/Counselor, Counseling Services (2004)
B.A., Assumption College; M.Ed., Guidance, Boston University; Ph.D., University of Connecticut

Charles J. Oroszko, Dean of Students (1978)
A.B., M.A., C.A.G.S., Assumption College

Jackie K. Sproul, Director, Career Services (2001)
B.A., University of California; M.S. in Counseling, San Francisco State University

Timothy J. Sullivan, Director, Student Activities (1980)
A.B., Clark University; M.A., Assumption College

Karen Tessmer, Associate Director/Assistant Athletic Director, Athletics (1994)
B.A., Gettysburg College; M.A., James Madison University

Marcela A. Uribe-Jennings, Assistant Dean/Director, Office of Multicultural Affairs/ Alternatives for Individual Development (1982)
B.S., M.Ed., Worcester State College

Sereyna Wallace, Staff Assistant/Residence Director, Residence Life and Housing (2005)
B.S., Eastern Connecticut State University

Christine L. Zerbst, Staff Assistant/Residence Director, Residence Life and Housing (2005)
B.S., Northern Michigan University; M.Ed., Purdue University

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Jill Mandeville '07

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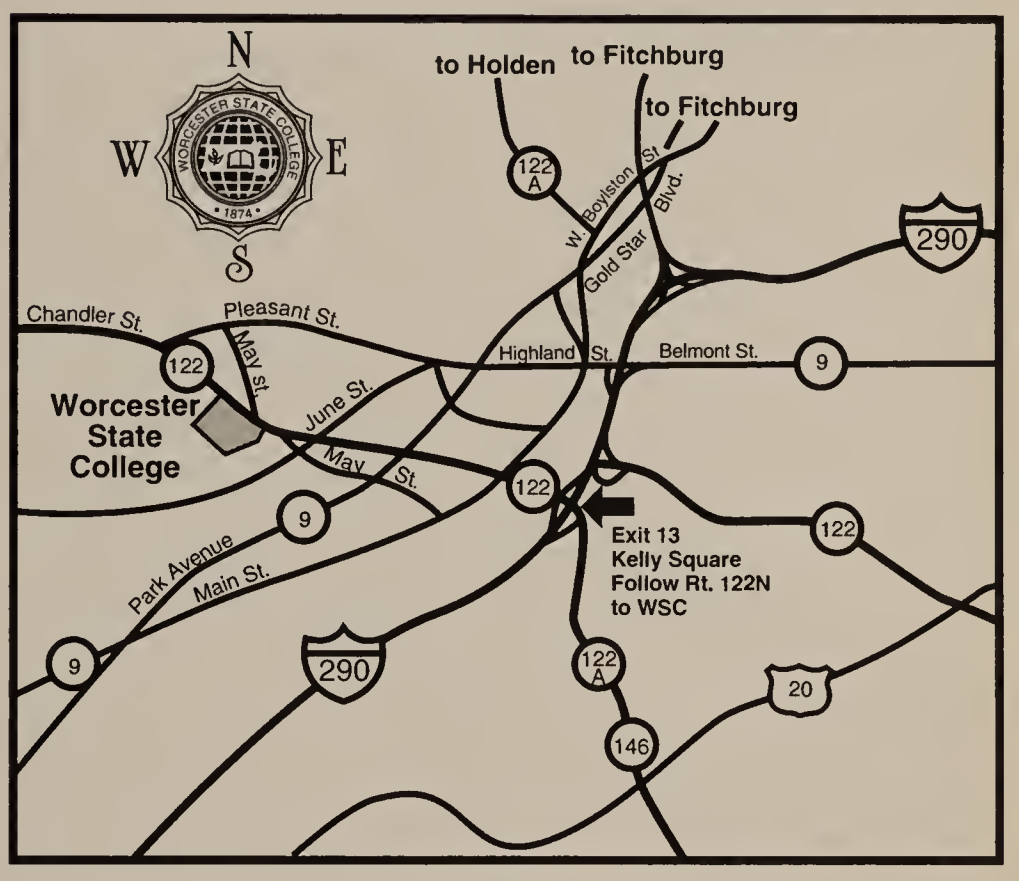
# Directions to the Campus

**Worcester State College** is located in Worcester, Massachusetts, New England's third largest city, a thriving community of 162,000 residents. Worcester is located 40 miles west of Boston. The campus is easily accessible by auto, bus, or train from anywhere in New England.




## By Auto

**From Massachusetts Turnpike (I-90):** Take Exit 10 *(Auburn)* to Rt. 290 East. *(see from 290 East)*

**From Rt. 495:** Take Exit 25 to Rt. 290 West. *(see from 290 West)*

**From Rt. 9 West:** Follow Rt. 9 West into Worcester. *(see from Highland Street)*

**From Rt. 146 North:** Take Rt. 146 North to Rt. 290 East. *(see from 290 East)*

**From Rt. 190 South:** Take Rt. 290 West. *(see from 290 West)*

**From Rt. 290 West:** Take Exit 18 *(Rt. 9 West)*; turn right off exit ramp and stay in center lane, following directions for Rt. 9 West. Turn right onto Rt. 9 West, also known as Highland Street. *(see from Highland Street)*

**From Rt. 290 East:** Take Exit 17 *(Rt. 9 West)*; turn left onto Rt. 9 West which will turn into Highland Street at the bottom of the hill. Proceed up the hill onto Highland Street. *(see from Highland Street)*

**From Highland Street:** While on Highland Street, stay in the right lane. Stay on Highland Street for 1.5 miles. *(You'll pass Elm Park and Doherty High School on the left.)* At the rotary, bear left onto June Street. At the second light, turn right onto May Street. The main entrance to the College will be three blocks ahead on your left.

The College mailing address is:
Worcester State College
486 Chandler Street
Worcester, MA 01602-2597

*Telephone:* 508-929-8000

Normal office hours are
9 a.m. to 5 p.m. Monday through Friday

**Visit our website:**
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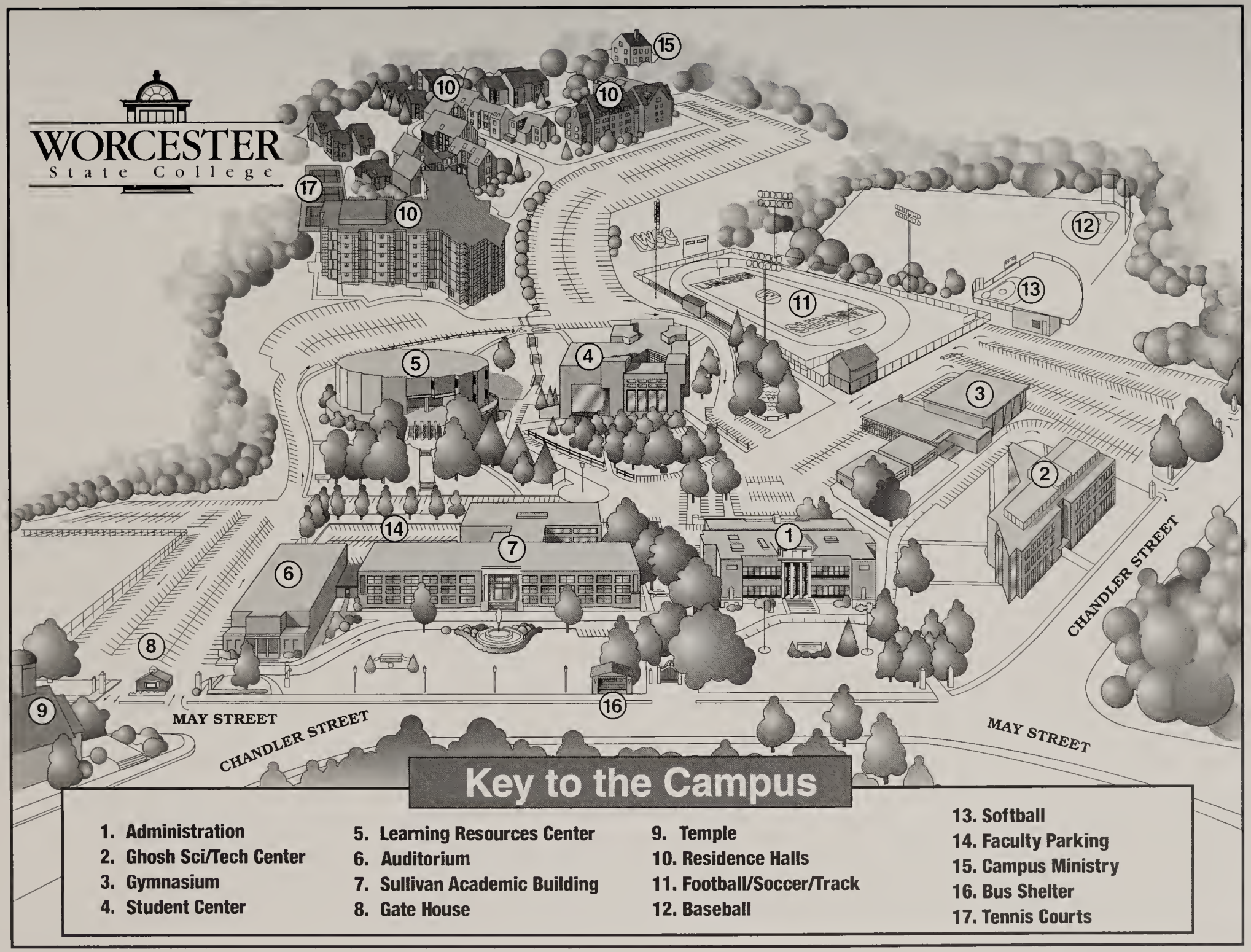
[#1]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1. Administration
2. Ghosh Sci/Tech Center
3. Gymnasium
4. Student Center
5. Learning Resources Center
6. Auditorium
7. Sullivan Academic Building
8. Gate House
9. Temple
10. Residence Halls
11. Football/Soccer/Track
12. Baseball
13. Softball
14. Faculty Parking
15. Campus Ministry
16. Bus Shelter
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